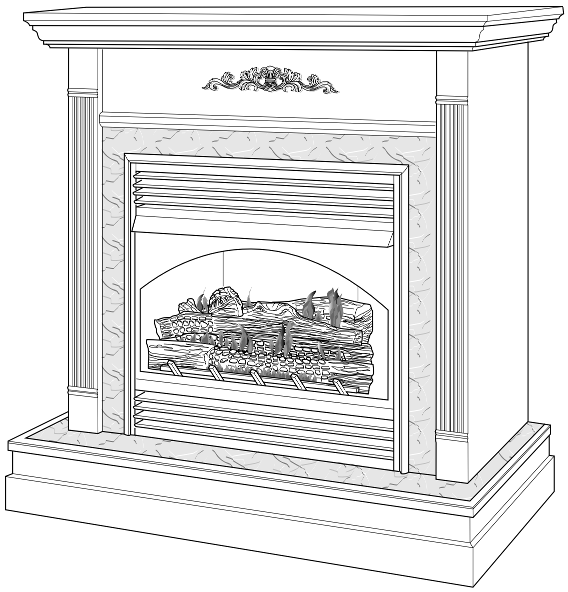
DESA INTERNATIONAL™

UNVENTED (VENT-FREE) GAS FIREPLACE
OWNER'S OPERATION AND INSTALLATION MANUAL

For more information, visit www.desatech.com

EFS33NR
EFS33PR
VSGF33NR
VSGF33PR
Remote-Ready
Fireplace System





Shown with optional cabinet mantel, hearth base, and trim accessories.

WARNING: If the information in this manual is not followed exactly, a fire or explosion may result causing property damage, personal injury, or loss of life.

— Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

— WHAT TO DO IF YOU SMELL GAS
- **Do not try to light any appliance.**
- **Do not touch any electrical switch; do not use any phone in your building.**
- **Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.**
- **If you cannot reach your gas supplier, call the fire department.**

— Installation and service must be performed by a qualified installer, service agency, or the gas supplier.

WARNING: Improper installation, adjustment, alteration, service, or maintenance can cause injury or property damage. Refer to this manual for correct installation and operational procedures. For assistance or additional information consult a qualified installer, service agency, or the gas supplier.

WARNING: This is an unvented gas-fired heater. It uses air (oxygen) from the room in which it is installed. Provisions for adequate combustion and ventilation air must be provided. Refer to *Air for Combustion and Ventilation* section on page 4 of this manual.

This appliance may be installed in an aftermarket,* manufactured (mobile) home, where not prohibited by local codes.

This appliance is only for use with the type of gas indicated on the rating plate. This appliance is not convertible for use with other gases.

*** Aftermarket: Completion of sale, not for purpose of resale, from the manufacturer**

Save this manual for future reference. DESA

TABLE OF CONTENTS

SAFETY INFORMATION

⚠ WARNINGS

IMPORTANT: Read this owner's manual carefully and completely before trying to assemble, operate, or service this heater. Improper use of this heater can cause serious injury or death from burns, fire, explosion, electrical shock, and carbon monoxide poisoning.

⚠ DANGER: Carbon monoxide poisoning may lead to death!

Carbon Monoxide Poisoning: Early signs of carbon monoxide poisoning resemble the flu, with headaches, dizziness, or nausea. If you have these signs, the heater may not be working properly. **Get fresh air at once!** Have heater serviced. Some people are more affected by carbon monoxide than others. These include pregnant women, people with heart or lung disease or anemia, those under the influence of alcohol, and those at high altitudes.

Natural and Propane/LP Gas: Natural and propane/LP gases are odorless. An odor-making agent is added to the gas. The odor helps you detect a gas leak. However, the odor added to the gas can fade. Gas may be present even though no odor exists.

Make certain you read and understand all warnings. Keep this manual for reference. It is your guide to safe and proper operation of this heater.

⚠ WARNING: Any change to this heater or its controls can be dangerous.

⚠ WARNING: Do not use a blower insert, heat exchanger insert, or other accessory not approved for use with this fireplace.

⚠ WARNING: Do not allow fans to blow directly into the fireplace. Avoid any drafts that alter burner flame patterns. Ceiling fans can create drafts that alter burner flame patterns. Altered burner patterns can cause sooting.

Due to high temperatures, the appliance should be located out of traffic and away from furniture and draperies.

Do not place clothing or other flammable material on or near the appliance. Never place any objects on the heater.

Fireplace front and screen become very hot when running fireplace. Keep children and adults away from hot surfaces to avoid burns or clothing ignition. Fireplace will remain hot for a time after shutdown. Allow surfaces to cool before touching.

Carefully supervise young children when they are in the room with fireplace. When using the optional hand-held remote accessory, keep selector switch in the OFF position to prevent children from turning on burners with remote.

You must operate this fireplace with the fireplace screen and hood in place. Make sure fireplace screen and hood are in place before running heater.

Keep the appliance area clear and free from combustible materials, gasoline, and other flammable vapors and liquids.

SAFETY INFORMATION

Continued

1. This appliance is only for use with the type of gas indicated on the rating plate. This appliance is not convertible for use with other gases.
2. Do not place propane/LP supply tank(s) inside any structure. Locate propane/LP supply tank(s) outdoors (propane/LP units only).
3. If you smell gas
   - shut off gas supply
   - do not try to light any appliance
   - do not touch any electrical switch; do not use any phone in your building
   - immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions
   - if you cannot reach your gas supplier, call the fire department
4. This fireplace shall not be installed in a bedroom or bathroom.
5. Do not use this fireplace as a wood-burning fireplace. Use only the logs provided with the fireplace.
6. Do not add extra logs or ornaments such as pine cones, vermiculite, or rock wool. Using these added items can cause sooting. Do not add lava rock around base. Rock and debris could fall into the control area of fireplace.
7. To prevent the creation of soot, follow the instructions in *Cleaning and Maintenance*, page 19.
8. Before using furniture polish, wax, carpet cleaner, or similar products, turn heater off. If heated, the vapors from these products may create a white powder residue within burner box or on adjacent walls or furniture.
9. This fireplace needs fresh air ventilation to run properly. This fireplace has an Oxygen Depletion Sensing (ODS) safety shutoff system. The ODS shuts down the fireplace if enough fresh air is not available. See *Air for Combustion and Ventilation,* pages 4 through 6. If fireplace keeps shutting off, see *Troubleshooting,* pages 20 through 23.
10. Do not run fireplace
    - where flammable liquids or vapors are used or stored
    - under dusty conditions
11. Do not use this fireplace to cook food or burn paper or other objects.
12. Do not use fireplace if any part has been exposed to or under water. Immediately call a qualified service technician to inspect the fireplace and to replace any part of the control system and any gas control which has been under water.
13. Do not operate fireplace if any log is broken. Do not operate fireplace if a log is chipped (dime-sized or larger).
14. Turn fireplace off and let cool before servicing. Only a qualified service person should service and repair fireplace.
15. Operating fireplace above elevations of 4,500 feet could cause pilot outage.
16. To prevent performance problems in propane/LP units, do not use propane/LP fuel tanks of less than 100 lbs. capacity (propane/LP units only).
17. Provide adequate clearances around air openings.

PRODUCT IDENTIFICATION

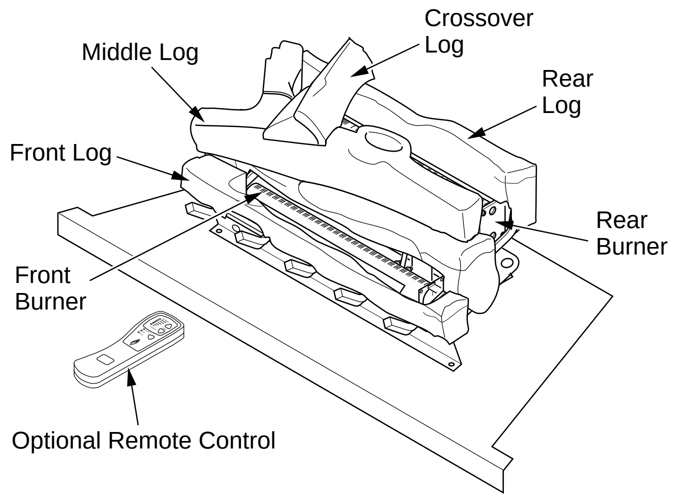


Figure 1 - Log Base Assembly (VSGF33NR Shown)

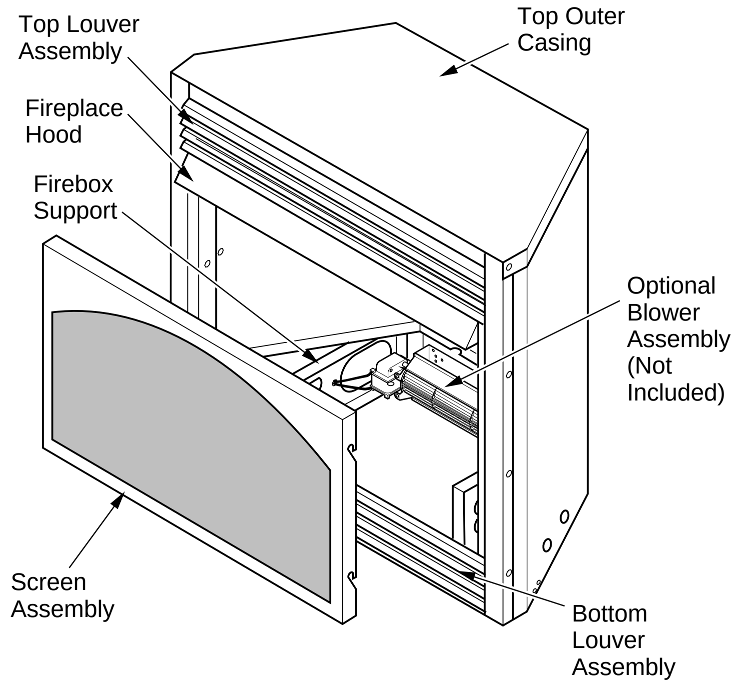


Figure 2 - Fireplace (VSGF33NR Shown)

LOCAL CODES

Install and use fireplace with care. Follow all local codes. In the absence of local codes, use the latest edition of *The National Fuel Gas Code ANSI Z223.1/NFPA 54**.

*Available from:

American National Standards Institute, Inc.
1430 Broadway
New York, NY 10018

National Fire Protection Association, Inc.
Batterymarch Park
Quincy, MA 02269

Note: Where listed vented decorative logs are required, thermostat operation is not permitted.

UNPACKING

⚠ CAUTION: Do not remove the metal data plates attached to the heater base assembly. The data plates contain important warranty and safety information.

1. With utility knife, cut the carton all the way around above the staples on the bottom tray. Lift the carton off the heater. Remove packing. *Note:* The hood is located in the packing on the right hand side of the heater front. Lift the heater off the bottom tray.
2. Locate two screws above top corners of the fireplace screen. Remove and discard these screws. Lift fireplace screen up and pull out to remove.
3. Remove protective packaging applied to logs, log base assembly, and fireplace.
4. Remove fireplace hood from carton insert.
5. Check all items for any shipping damage. If damaged, promptly inform dealer where you bought fireplace.

PRODUCT FEATURES

OPERATION

This vent-free fireplace is clean burning. It requires no outside venting. There is no heat loss out a vent or up a chimney. Heat is generated by both realistic flames and glowing embers. When used without the optional blower, the fireplace requires no electricity making it ideal for emergency backup heat.

SAFETY DEVICE

This fireplace has a pilot with an Oxygen Depletion Sensing (ODS) safety shutoff system. The ODS is a required feature for vent-free room heaters. The ODS system shuts off the fireplace if there is not enough fresh air.

PIEZO IGNITION SYSTEM

This fireplace has a piezo ignitor. This system requires no matches, batteries, or other sources to light fireplace.

OPTIONAL REMOTE CONTROL ACCESSORY

There are four optional remote controls (not included) that can be purchased separately for this log heater:

- wall switch
- wall thermostat
- hand-held ON/OFF remote
- hand-held thermostat remote

See *Accessories*, pages 28 through 30.

OPTIONAL BLOWER ASSEMBLY ACCESSORY

This fireplace accepts an optional blower assembly (not included). The GA3700TA Series blower operates thermostatically and features a variable speed control. The GA3700 Series operates manually and also features a variable speed control. The blower circulates heated air from the fireplace into the room. Use of blower is optional. See *Accessories*, pages 28 through 30.

AIR FOR COMBUSTION AND VENTILATION

⚠ WARNING: This heater shall not be installed in a confined space or unusually tight construction unless provisions are provided for adequate combustion and ventilation air. Read the following instructions to insure proper fresh air for this and other fuel-burning appliances in your home.

Today's homes are built more energy efficient than ever. New materials, increased insulation, and new construction methods help reduce heat loss in homes. Home owners weather strip and caulk around windows and doors to keep the cold air out and the warm air in. During heating months, home owners want their homes as airtight as possible.

While it is good to make your home energy efficient, your home needs to breathe. Fresh air must enter your home. All fuel-burning appliances need fresh air for proper combustion and ventilation.

Exhaust fans, fireplaces, clothes dryers, and fuel burning appliances draw air from the house to operate. You must provide adequate fresh air for these appliances. This will insure proper venting of vented fuel-burning appliances.

AIR FOR COMBUSTION AND VENTILATION

Continued

PROVIDING ADEQUATE VENTILATION

The following are excerpts from *National Fuel Gas Code, ANSI Z223.1/NFPA 54, Section 5.3, Air for Combustion and Ventilation.*

All spaces in homes fall into one of the three following ventilation classifications:

1. Unusually Tight Construction
2. Unconfined Space
3. Confined Space

The information on pages 4 through 6 will help you classify your space and provide adequate ventilation.

Unusually Tight Construction

The air that leaks around doors and windows may provide enough fresh air for combustion and ventilation. However, in buildings of unusually tight construction, you must provide additional fresh air.

Unusually tight construction is defined as construction where:

a. walls and ceilings exposed to the outside atmosphere have a continuous water vapor retarder with a rating of one perm (6 x 10^{-11} kg per pa-sec-m^2) or less with openings gasketed or sealed *and*

b. weather stripping has been added on openable windows and doors *and*

c. caulking or sealants are applied to areas such as joints around window and door frames, between sole plates and floors, between wall-ceiling joints, between wall panels, at penetrations for plumbing, electrical, and gas lines, and at other openings.

If your home meets all of the three criteria above, you must provide additional fresh air. See *Ventilation Air From Outdoors*, page 6.

If your home does not meet all of the three criteria above, proceed to *Determining Fresh-Air Flow For Heater Location,* column 2.

Confined and Unconfined Space

The National Fuel Gas Code, ANSI Z223.1/NFPA 54 defines a confined space as a space whose volume is less than 50 cubic feet per 1,000 Btu per hour (4.8 m^3 per kw) of the aggregate input rating of all appliances installed in that space and an unconfined space as a space whose volume is not less than 50 cubic feet per 1,000 Btu per hour (4.8 m^3 per kw) of the aggregate input rating of all appliances installed in that space. Rooms communicating directly with the space in which the appliances are installed*, through openings not furnished with doors, are considered a part of the unconfined space.

* Adjoining rooms are communicating only if there are doorless passageways or ventilation grills between them.

DETERMINING FRESH-AIR FLOW FOR HEATER LOCATION

Determining if You Have a Confined or Unconfined Space

Use this work sheet to determine if you have a confined or unconfined space.

Space: Includes the room in which you will install heater plus any adjoining rooms with doorless passageways or ventilation grills between the rooms.

1. Determine the volume of the space (length x width x height).

   Length x Width x Height = ___________ cu. ft. (volume of space)

   Example: Space size 20 ft. (length) x 16 ft. (width) x 8 ft. (ceiling height) = 2560 cu. ft. (volume of space)

   If additional ventilation to adjoining room is supplied with grills or openings, add the volume of these rooms to the total volume of the space.

2. Multiply the space volume by 20 to determine the maximum Btu/Hr the space can support.

   __________ (volume of space) x 20 = (Maximum Btu/Hr the space can support)

   Example: 3,168 cu. ft. (volume of space) x 20 = 63,360 (maximum Btu/Hr the space can support)

3. Add the Btu/Hr of all fuel burning appliances in the space.

Vent-free heater		_____________	Btu/Hr
Gas water heater*		_____________	Btu/Hr
Gas furnace		_____________	Btu/Hr
Vented gas heater		_____________	Btu/Hr
Gas fireplace logs		_____________	Btu/Hr
Other gas appliances*	+	_____________	Btu/Hr
Total	=	_____________	Btu/Hr

   * Do not include direct-vent gas appliances. Direct-vent draws combustion air from the outdoors and vents to the outdoors.

   Example:

Gas water heater		40,000	Btu/Hr
Vent-free heater	+	33,000	Btu/Hr
Total	=	73,000	Btu/Hr

4. Compare the maximum Btu/Hr the space can support with the actual amount of Btu/Hr used.

   __________________ Btu/Hr (maximum the space can support)

   __________________ Btu/Hr (actual amount of Btu/Hr used)

   Example: 63,360 Btu/Hr (maximum the space can support)

   73,000 Btu/Hr (actual amount of Btu/Hr used)

AIR FOR COMBUSTION AND VENTILATION
Continued

The space in the example on page 5 is a confined space because the actual Btu/Hr used is more than the maximum Btu/Hr the space can support. You must provide additional fresh air. Your options are as follows:

A. Rework worksheet, adding the space of an adjoining room. If the extra space provides an unconfined space, remove door to adjoining room or add ventilation grills between rooms. See *Ventilation Air From Inside Building*.

B. Vent room directly to the outdoors. See *Ventilation Air From Outdoors*.

C. Install a lower Btu/Hr heater, if lower Btu/Hr size makes room unconfined.

If the actual Btu/Hr used is less than the maximum Btu/Hr the space can support, the space is an unconfined space. You will need no additional fresh air ventilation.

WARNING: If the area in which the heater may be operated is smaller than that defined as an unconfined space or if the building is of unusually tight construction, provide adequate combustion and ventilation air by one of the methods described in the *National Fuel Gas Code, ANSI Z223.1/NFPA 54 Section 5.3* or applicable local codes.

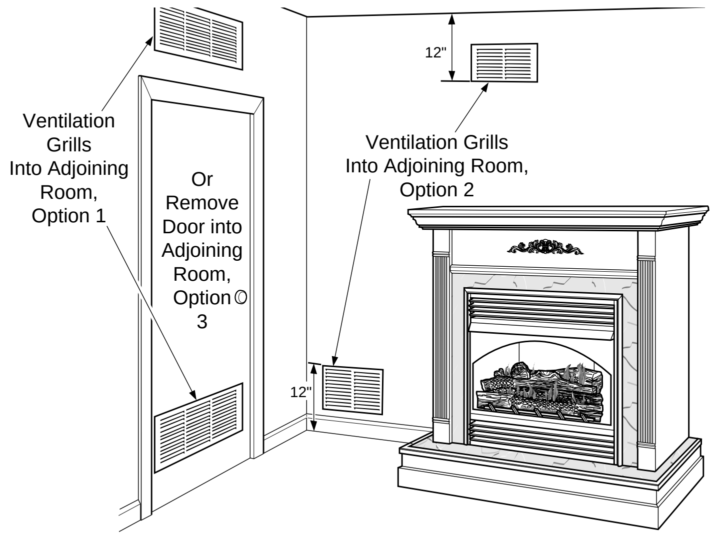


Figure 3 - Ventilation Air from Inside Building

VENTILATION AIR

Ventilation Air From Inside Building

This fresh air would come from an adjoining unconfined space. When ventilating to an adjoining unconfined space, you must provide two permanent openings: one within 12" of the ceiling and one within 12" of the floor on the wall connecting the two spaces (see options 1 and 2, Figure 3). You can also remove door into adjoining room (see option 3, Figure 3). Follow the *National Fuel Gas Code, ANSI Z223.1/NFPA 54, Section 5.3, Air for Combustion and Ventilation* for required size of ventilation grills or ducts.

Ventilation Air From Outdoors

Provide extra fresh air by using ventilation grills or ducts. You must provide two permanent openings: one within 12" of the ceiling and one within 12" of the floor. Connect these items directly to the outdoors or spaces open to the outdoors. These spaces include attics and crawl spaces. Follow the *National Fuel Gas Code, ANSI Z223.1/NFPA 54, Section 5.3, Air for Combustion and Ventilation* for required size of ventilation grills or ducts.

IMPORTANT: Do not provide openings for inlet or outlet air into attic if attic has a thermostat-controlled power vent. Heated air entering the attic will activate the power vent.

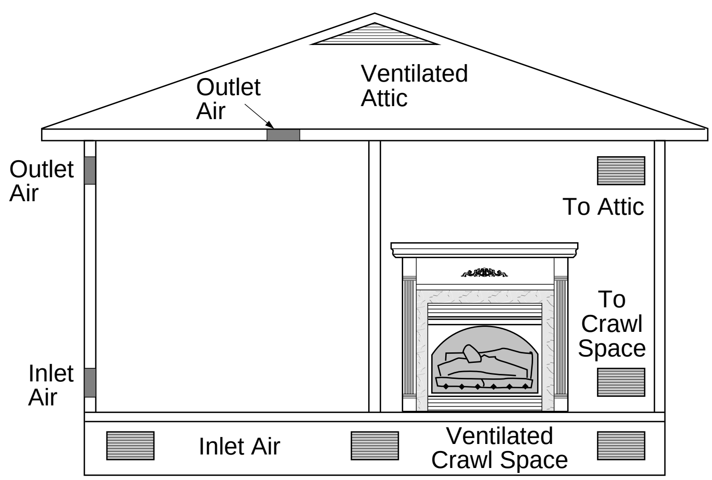


Figure 4 - Ventilation Air from Outdoors

INSTALLATION

NOTICE: This heater is intended for use as supplemental heat. Use this heater along with your primary heating system. Do not install this heater as your primary heat source. If you have a central heating system, you may run system's circulating blower while using heater. This will help circulate the heat throughout the house. In the event of a power outage, you can use this heater as your primary heat source.

⚠ WARNING: A qualified service person must install fireplace. Follow all local codes.

⚠ WARNING: Never install the fireplace

- **in a bedroom or bathroom**
- **in a recreational vehicle**
- **where curtains, furniture, clothing, or other flammable objects are less than 42 inches from the front, top, or sides of the heater**
- **in high traffic areas**
- **in windy or drafty areas**

⚠ CAUTION: This fireplace creates warm air currents. These currents move heat to wall surfaces next to fireplace. Installing fireplace next to vinyl or cloth wall coverings or operating heater where impurities (such as, but not limited, to tobacco smoke, aromatic candles, cleaning fluids, oil or kerosene lamps, etc.) in the air exist, may discolor walls or cause odors.

Note: Your fireplace is designed to be used in zero clearance installations. Wall or framing material can be placed directly against any exterior surface on the rear, sides, or top of your fireplace, except where standoff spacers are integrally attached. If standoff spacers are attached to your fireplace, these spacers can be placed directly against wall or framing materials.

Use the dimensions shown for rough openings to create the easiest installation. See *Built-In Fireplace Installation,* pages 10 and 11.

IMPORTANT: Vent-free heaters add moisture to the air. Although this is beneficial, installing fireplace in rooms without enough ventilation air may cause mildew to form from too much moisture. See *Air for Combustion and Ventilation,* pages 4 through 6.

IMPORTANT: Make sure the fireplace is level. If fireplace is not level, log set will not work properly.

CHECK GAS TYPE

Use the correct gas type (natural or propane/LP) for your fireplace. If your gas supply is not correct, do not install fireplace. Call dealer where you bought fireplace for proper type fireplace.

ELECTRICAL HOOKUP
(Models GA3700 Series and GA3700T Series Blower Accessories, and GA3555 Internal Duplex Kit)

This fireplace accepts a blower assembly with an electrical cord. The electrical cord is five feet in length. You must locate fireplace within reach of a 120 volt grounded electrical outlet. If not, you must install an electrical outlet within reach of fireplace power cord. The GA3555 outlet accessory may be used for built-in applications with blower accessory installed.

INSTALLING HOOD

Install hood to rail already installed in fireplace as shown in Figure 5. Use 3 Phillips screws provided.

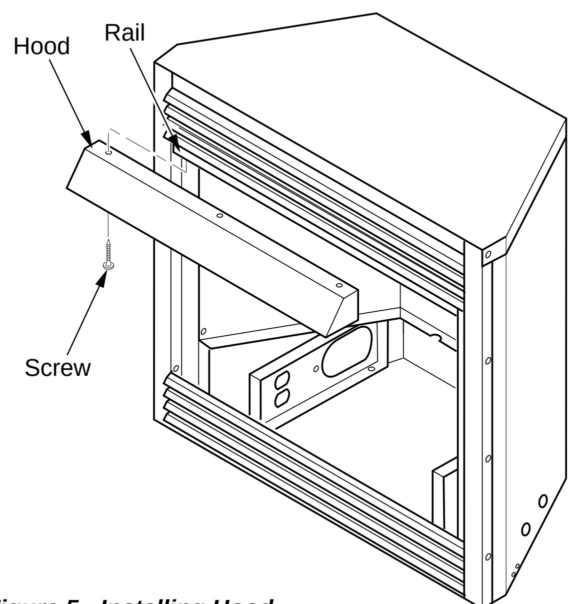


Figure 5 - Installing Hood

INSTALLATION
Continued

ASSEMBLING AND ATTACHING OPTIONAL BRASS TRIM
(Included with Mantel Accessory)

IMPORTANT: If you are recessing the firebox in a wall, do not attach brass trim at this time. See *Built-In Fireplace Installation*, pages 10 and 11.

Note: The instructions below show assembling and attaching brass trim to fireplace.

1. Remove packaging from three pieces of brass trim.
2. Locate four brass screws, two adjusting plates with set screws, and two shims in the hardware packet.
3. Align shim under adjusting plate as shown in Figure 6.
4. Slide one end of adjusting plate/shim in slot on mitered edge of top brass trim (see Figure 6).
5. Slide other end of adjusting plate/shim in slot on mitered edge of side brass trim (see Figure 6).
6. While firmly holding edges of brass trim together, tighten both set screws on the adjusting plate with slotted screwdriver.
7. Repeat steps 1 through 6 for other side.
8. Tighten trim hanging screws (#10 x 6.25 shoulder) into holes in cabinets. Place the assembled trim onto fireplace cabinet. Align hanging notches on trim with hanging screws on side of fireplace (see Figure 7). Push trim firmly into place, sliding hanging notches over hanging screws.

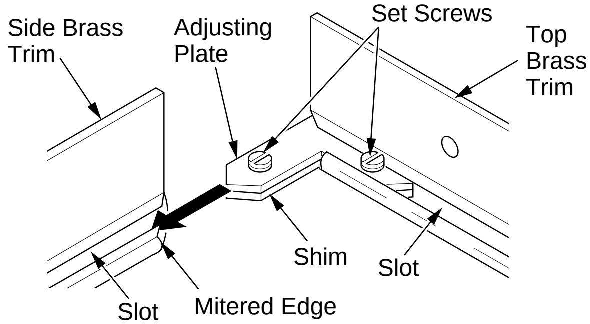


Figure 6 - Assembling Brass Trim

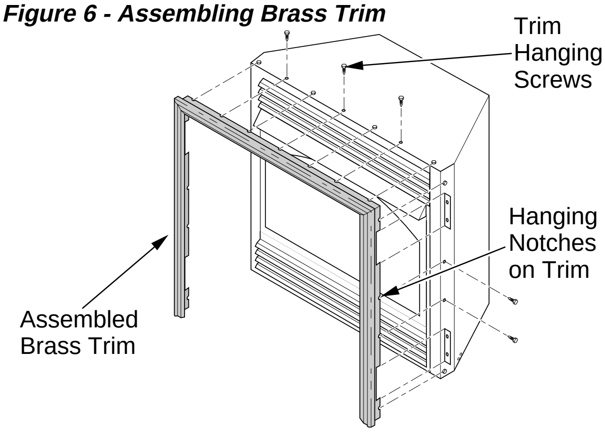


Figure 7 - Attaching Brass Trim to Fireplace (VSGF33NR Shown)

INSTALLATION CLEARANCES

⚠ WARNING: Maintain the minimum clearances. If you can, provide greater clearances from floor, ceiling, and adjoining wall.

Carefully follow the instructions below. This will ensure safe installation.

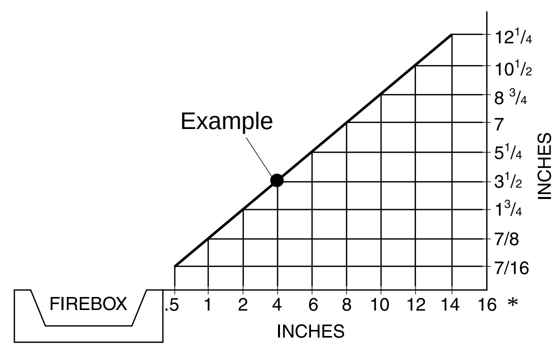
Minimum Clearances For Side Combustible Material, Side Wall, and Ceiling

A. Clearances from the side of the fireplace cabinet to any combustible material and wall should follow diagram in Figure 8.

Example: The face of a mantel, bookshelf, etc. is made of combustible material and protrudes 3 1/2" from the wall. This combustible material must be 4" from the side of the fireplace opening (see Figure 8).

B. Clearances from the top of the fireplace opening to the ceiling should not be less than 42 inches.

MINIMUM CLEARANCE TO COMBUSTIBLE MATERIALS		
Top	Left and Right Sides	Bottom and Rear
0"	16"	0"



*Minimum 16 inches from Side Wall

Figure 8 - Minimum Clearance for Combustible to Wall

CONVENTIONAL FIREPLACE INSTALLATION

Conventional installation of this fireplace involves installing fireplace along with the corner, face, or cabinet mantel with hearth base accessories against a wall in your home. Follow the instructions in this section to install the fireplace in this manner.

Note: The instructions in this section show installation using the cabinet mantel and the G3333F/G3334U/G3004W/G3335F/G3007U series hearth base accessories. The hearth base accessory shown is optional for this installation. You can install fireplace and

INSTALLATION

Continued

cabinet/corner mantel directly on the floor. The corner mantel accessory cannot be installed with the G3333F/G3334U/G3004W/G3335F/G3007U hearth base. The corner mantel can be paired with the G3008F/G3009U/G3010F corner hearth base. If mounting fireplace and cabinet or corner mantel to the floor, an optional G3005J/3005S/3005B Slim Base kit may be installed.

1. Assemble cabinet mantel, hearth base, and trim accessories. Assembly instructions are included with each accessory.
2. When installing blower, install a properly grounded, 120 volt three-prong electrical outlet at fireplace location if an outlet is not there. If possible, locate outlet so cabinet mantel will cover it when installed (see Figure 9).
3. Install gas piping to fireplace location. This installation includes an approved flexible gas line (if allowed by local codes) after the equipment shutoff valve. The flexible gas line must be the last item installed on the gas piping. See *Installing Gas Piping to Fireplace Location,* pages 11 and 12.
4. Place hearth base accessory against wall at installation location. Cut an access hole in hearth top to run flexible gas line to fireplace (see Figure 9). Make sure to locate access hole so cabinet mantel will cover it when installed. *Note:* You can secure base to floor using wood screws. Countersink screw heads and putty over.
5. Route flexible gas line through access hole in hearth base.
6. Center cabinet mantel on hearth base (see Figure 10). Make sure mantel is flush against wall.
7. Break off nailing flanges (see Figure 11) with hammer or pliers.
8. Place cardboard or other protective material on top of hearth base. Carefully set fireplace on protective material, with back of fireplace inside mantel opening.
9. Attach flexible gas line from fireplace gas regulator to gas supply. See *Connecting Fireplace to Gas Supply,* page 12.
10. If blower is installed, route blower electrical cord through access holes in either side of fireplace. *Note:* Bushing may be moved if necessary. Plug electrical cord into electrical outlet.
11. Carefully insert fireplace into cabinet mantel. Be careful not to scratch or damage hearth base, cabinet mantel, or any laminate trim on hearth base. Remove protective material from top of hearth base and from front of fireplace (if any). *Note:* You can secure fireplace to hearth or floor. Open lower louver. Locate screw holes in bottom of base. Tighten wood screws through these holes and into hearth or floor.
12. Check all gas connections for leaks. See *Checking Gas Connections,* page 13.

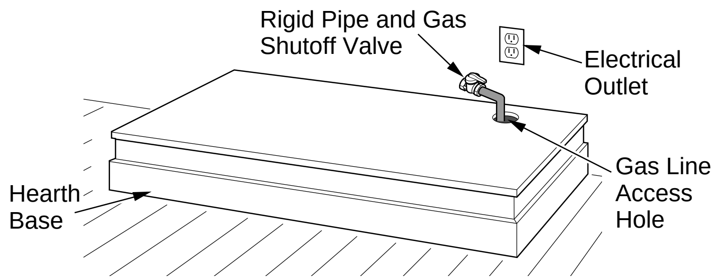


Figure 9 - Placing Hearth Base Accessory Against Wall

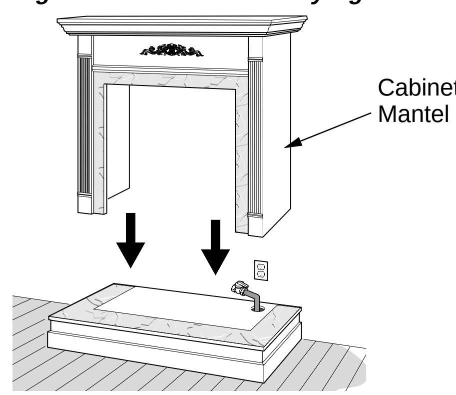


Figure 10 - Installing Cabinet Mantel

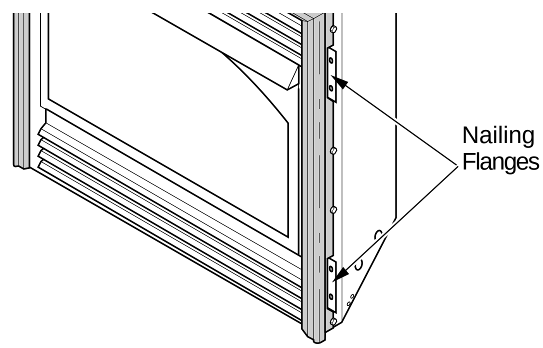


Figure 11 - Location of Nailing Flanges

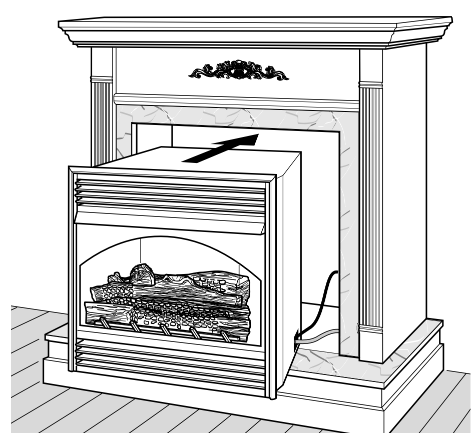


Figure 12 - Inserting Fireplace Into Cabinet Mantel

INSTALLATION
Continued

BUILT-IN FIREPLACE INSTALLATION

Built-in installation of this fireplace involves installing fireplace into a framed-in enclosure. This makes the front of fireplace flush with wall. If installing a mantel above the fireplace, you must follow the clearances shown in Figure 16, page 11. Follow the instructions below to install the fireplace in this manner.

	Actual	Framing
Height	32 3/8"	33"
Front Width	34 5/16"	35 1/2"
Depth	16 11/16"	17 3/4"

1. Frame in rough opening. Use dimensions shown in Figure 13 for the rough opening. If installing in a corner, use dimensions shown in Figure 14 for the rough opening. The height is 33" which is the same as the wall opening above.
2. If using blower, install and properly ground GA3555, three-prong 120 volt electrical outlet, in fireplace. Follow instructions included in kit.
3. Install gas piping into fireplace location. This installation includes an approved flexible gas line (if allowed by local codes) after the equipment shutoff valve. The flexible gas line must be the last item installed on the gas piping. See *Installing Gas Piping to Fireplace Location*, pages 11 and 12.
4. Carefully set fireplace in front of rough opening with back of fireplace inside wall opening.
5. Carefully insert fireplace into rough opening.
6. Attach flexible gas line to gas supply. See *Connecting Fireplace to Gas Supply,* page 12.
7. Attach fireplace to wall studs using nails or wood screws through holes in nailing flange (see Figure 15).
8. Check all gas connections for leaks. See *Checking Gas Connections*, page 13.
9. Plug electrical cord into electrical outlet installed in step 2.
10. Install brass trim after final finishing and/or painting of wall (see Figure 7, page 8).

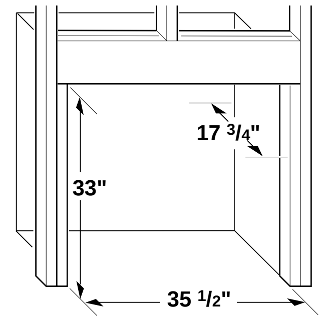


Figure 13 - Rough Opening for Installing in Wall

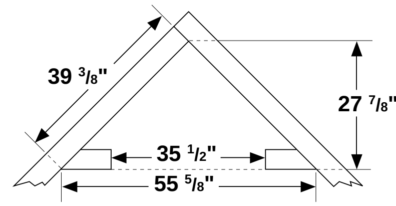


Figure 14 - Rough Opening for Installing in Corner

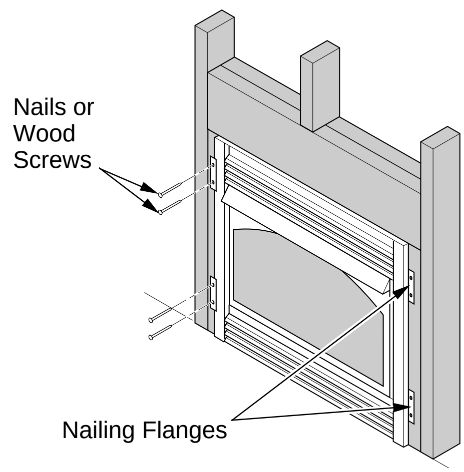


Figure 15 - Attaching Fireplace to Wall Studs

Mantel Clearances for Built-In Installation

If placing mantel above built-in fireplace, you must meet minimum clearance between mantel shelf and top of fireplace opening.

NOTICE: If your installation does not meet the minimum clearances shown, you must do one of the following:
- **raise the mantel to an acceptable height**
- **remove the mantel**

INSTALLATION
Continued

NOTICE: Surface temperatures of adjacent walls and mantels become hot during operation. Walls and mantels above the firebox may become hot to the touch. If installed properly, these temperatures meet the requirement of the national product standard. Follow all minimum clearances shown in this manual.

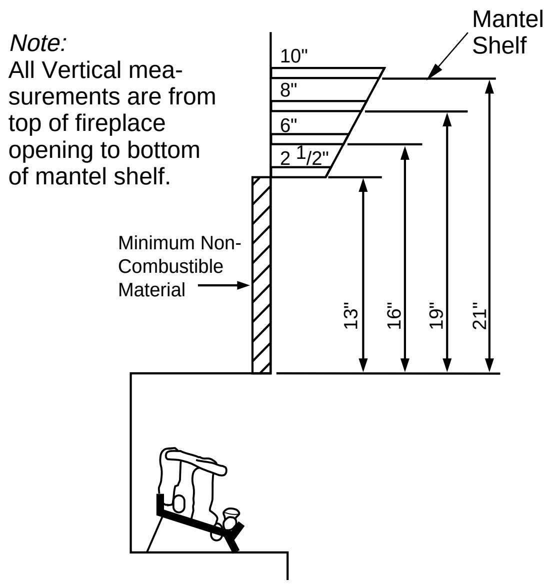


Figure 16 - Minimum Mantel Clearances for Built-In Installation

INSTALLING GAS PIPING TO FIREPLACE LOCATION

⚠ WARNING: This appliance requires a 1/2" NPT (National Pipe Thread) inlet connection to the pressure regulator.

⚠ WARNING: A qualified service person must connect fireplace to gas supply. Follow all local codes.

⚠ CAUTION: Never connect propane/LP fireplace directly to the propane/LP supply. This fireplace requires an external regulator (not supplied). Install the external regulator between the fireplace and propane/LP supply.

⚠ WARNING: Never connect natural gas fireplace to private (non-utility) gas wells. This gas is commonly known as wellhead gas.

Installation Items Needed

Before installing fireplace, make sure you have the items listed below.

- external regulator for propane/LP unit only (supplied by installer)
- piping (check local codes)
- sealant (resistant to propane/LP gas)
- equipment shutoff valve *
- test gauge connection *
- sediment trap (optional)
- tee joint
- pipe wrench
- approved flexible gas line with gas connector (if allowed by local codes) (not provided)

* A CSA design-certified equipment shutoff valve with 1/8" NPT tap is an acceptable alternative to test gauge connection. Purchase the optional CSA design-certified equipment shutoff valve from your dealer. See *Accessories*, pages 28 through 30.

For propane/LP units, the installer must supply an external regulator. The external regulator will reduce incoming gas pressure. You must reduce incoming gas pressure to between 11 and 14 inches of water. If you do not reduce incoming gas pressure, heater regulator damage could occur. Install external regulator with the vent pointing down as shown in Figure 17. Pointing the vent down protects it from freezing rain or sleet.

⚠ CAUTION: Use only new, black iron or steel pipe. Internally-tinned copper tubing may be used in certain areas. Check your local codes. Use pipe of 1/2" diameter or greater to allow proper gas volume to fireplace. If pipe is too small, undue loss of pressure will occur.

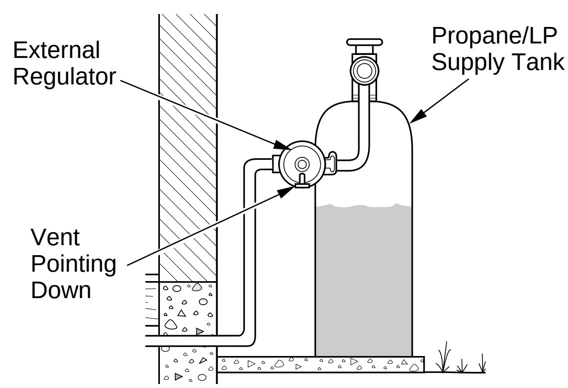


Figure 17 - External Regulator on Propane/LP Supply Tank with Vent Pointing Down

INSTALLATION
Continued

Installation must include an equipment shutoff valve, union, and plugged 1/8" NPT tap. Locate NPT tap within reach for test gauge hook up. NPT tap must be upstream from fireplace (see Figure 18).

IMPORTANT: Install equipment shutoff valve in an accessible location. The equipment shutoff valve is for turning on or shutting off the gas to the appliance.

Check your building codes for any special requirements for locating equipment shutoff valve to fireplaces.

Apply pipe joint sealant lightly to male NPT threads. This will prevent excess sealant from going into pipe. Excess sealant in pipe could result in clogged fireplace valves. Never use sealant on flare threads.

⚠ CAUTION: Use pipe joint sealant that is resistant to liquid petroleum (LP) gas.

We recommend that you install a sediment trap in supply line as shown in Figure 18. Locate sediment trap where it is within reach for cleaning. Install in piping system between fuel supply and fireplace. Locate sediment trap where trapped matter is not likely to freeze. A sediment trap traps moisture and contaminants. This keeps them from going into fireplace gas controls. If sediment trap is not installed or is installed wrong, fireplace may not run properly.

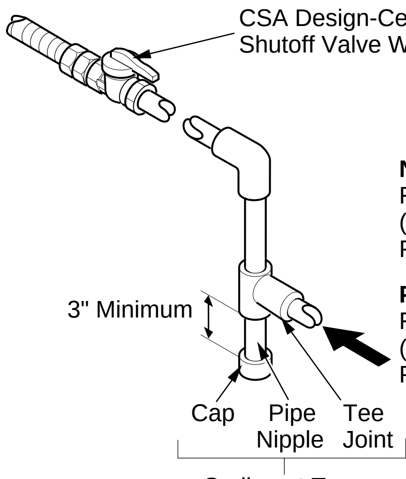


Figure 18 - Gas Connection

* Purchase the optional CSA design-certified equipment shutoff valve from your dealer. See *Accessories*, pages 28 through 30.

** Minimum inlet pressure for purpose of input adjustment.

CONNECTING EQUIPMENT SHUTOFF VALVE TO HEATER CONTROL

Installation Items Needed

- 5/16" hex socket wrench or nut-driver
- Phillips screwdriver
- sealant (resistant to propane/LP gas, not provided)

1. Remove fireplace screen. Remove two screws that hold fireplace screen in place for shipping. These screws are located near top of screen. Discard screws. Lift fireplace screen up and pull out to remove.
2. Remove screws that attach log base assembly to fireplace (see Figure 19). Carefully lift up log base assembly and remove from fireplace (see Figure 19).

Note: If adding the G8000A series brick liner accessory, install it now. Follow instructions in G8000A accessory kit.

⚠ CAUTION: Do not pick up log base assembly by burner. This could damage burner. Only handle base by grates.

3. Route gas line (provided by installer) from equipment shutoff valve to fireplace. Route flexible gas supply line through one of the access holes.

NOTICE: Most building codes do not permit concealed gas connections. A flexible gas line is provided to allow accessibility from the fireplace (see Figure 20, page 13). The flexible gas supply line connection to the equipment shutoff valve should be accessible.

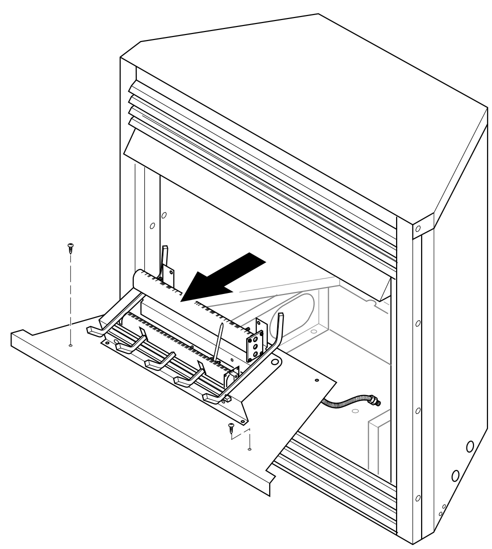


Figure 19 - Removing Log Base Assembly From Fireplace

INSTALLATION
Continued

4. Attach the flexible gas line to gas supply (see Figure 20). Check tightness of flexible gas line attached to gas regulator of fireplace (see Figure 20).
5. Check all gas connections for leaks. See *Checking Gas Connections*.
6. Replace log base assembly back into fireplace. Feed flexible gas line into fireplace base area while replacing log base assembly. Make sure the entire flexible gas line is in fireplace base area. Reattach log base assembly to fireplace with screws removed in step 2, page 12.

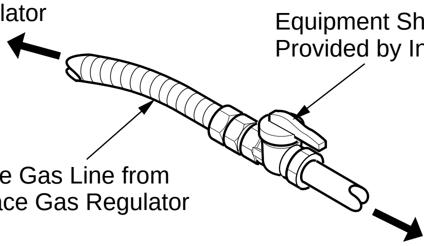


Figure 20 - Attaching Flexible Gas Lines Together

CHECKING GAS CONNECTIONS

WARNING: Test all gas piping and connections for leaks after installing or servicing. Correct all leaks at once.

WARNING: Never use an open flame to check for a leak. Apply a noncorrosive leak detection fluid to all joints. Bubbles forming show a leak. Correct all leaks at once.

CAUTION: Make sure external regulator has been installed between propane/LP supply and fireplace. See guidelines under *Connecting Fireplace to Gas Supply*, page 12.

Pressure Testing gas Supply Piping system

Test Pressures In Excess Of 1/2 PSIG (3.5 kPa)

1. Disconnect fireplace with its main gas valve (control valve) and equipment shutoff valve from gas supply piping system. Pressures in excess of 1/2 psig will damage fireplace regulator.
2. Cap off open end of gas pipe where equipment shutoff valve was connected.
3. Pressurize supply piping system by either opening propane/LP supply tank valve for propane/LP gas or opening main gas valve located on or near gas meter for natural gas, or using compressed air.
4. Check all joints of gas supply piping system. Apply noncorrosive leak detection fluid to all joints. Bubbles forming show a leak.
5. Correct all leaks at once.
6. Reconnect fireplace and equipment shutoff valve to gas supply. Check reconnected fittings for leaks.

Test Pressures Equal To or Less Than 1/2 PSIG (3.5 kPa)

1. Close equipment shutoff valve (see Figure 21).
2. Pressurize supply piping system by either opening propane/LP supply tank valve for propane/LP gas or opening main gas valve located on or near gas meter for natural gas, or using compressed air.
3. Check all joints from gas meter to equipment shutoff valve for natural gas or propane/LP supply to equipment shutoff valve for propane/LP (see Figures 22 and 23, page 14). Apply noncorrosive leak detection fluid to all joints. Bubbles forming show a leak.
4. Correct all leaks at once.

Pressure Testing Fireplace Gas Connections

1. Open equipment shutoff valve (see Figure 21).
2. Open main gas valve located on or near gas meter for natural gas or open propane/LP supply tank valve.
3. Make sure control knob of fireplace is in the OFF position.
4. Check all joints from equipment shutoff valve to gas control valve (see Figures 22 or 23, page 14). Apply noncorrosive leak detection fluid to all joints. Bubbles forming show a leak.
5. Correct all leaks at once.
6. Light fireplace (see *Operating Fireplace*, pages 15 through 17. Check all other internal joints for leaks.
7. Turn off fireplace (see *To Turn Off Gas to Appliance*, page 16).

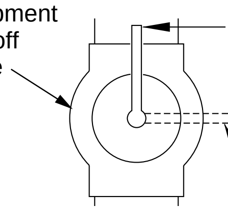


Figure 21 - Equipment Shutoff Valve

INSTALLATION
Continued

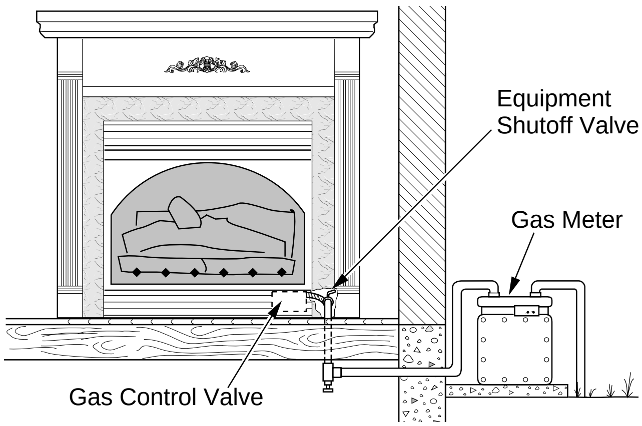


Figure 22 - Checking Gas Joints for Natural Gas

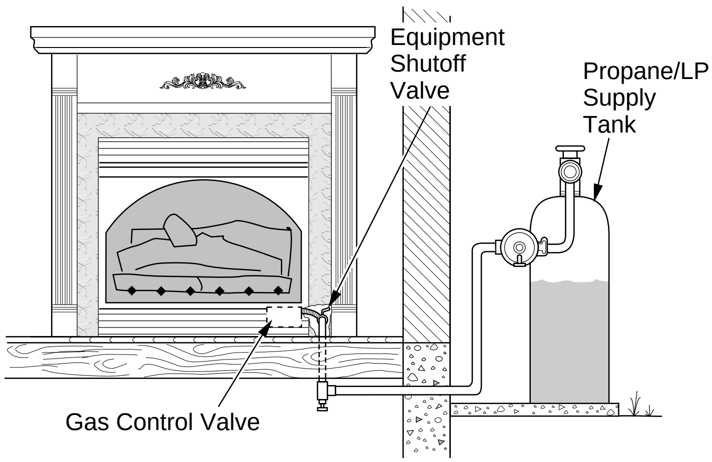


Figure 23 - Checking Gas Joints for Propane/LP Gas

INSTALLING LOGS

⚠ WARNING: Failure to position the parts in accordance with these diagrams or failure to use only parts specifically approved with this heater may result in property damage or personal injury.

⚠ CAUTION: Do not remove the metal data plates attached to the heater base assembly. The data plates contain important safety and warranty information.

Each log is marked with a number. These numbers will help you identify the log when installing. It is very important to install these logs exactly as instructed. Do not modify logs. Only use logs supplied with heater.

1. Place front log (#1) on top of the grate. Make sure the notches in the bottom of the log fit over the grate prongs (see Figure 24). Push back of log flush with metal grate bar.
2. Rest middle log (#2) behind metal posts on front burner. Make sure the grooves in the bottom of the log fit over the grate. Bring the log forward next to the metal posts (see Figure 25).
3. Slide the grooves in the back of the rear log (#3) against the rear grate prongs. Make sure the peg on the log is on top (see Figure 26).
4. Place the crossover log (#4) on the rear log and the middle log. Make sure the peg on the rear log is in the hole in the bottom of the crossover log. The crossover log should fit in the cutout of the middle log (see Figure 27).
5. Install fireplace screen by slipping notches of fireplace screen over screws on front of fireplace (see Figure 28, page 15).

⚠ WARNING: You must operate this fireplace with the fireplace screen in place. Make sure fireplace screen is in place before running fireplace.

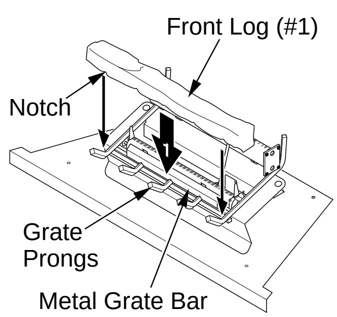


Figure 24 - Installing Front Log (#1)

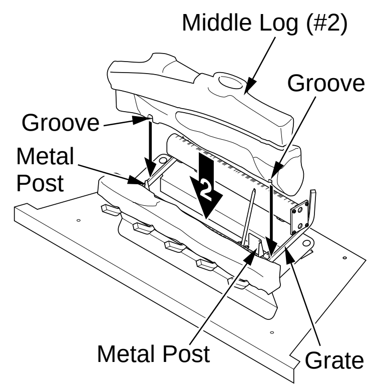


Figure 25 - Installing Middle Log (#2)

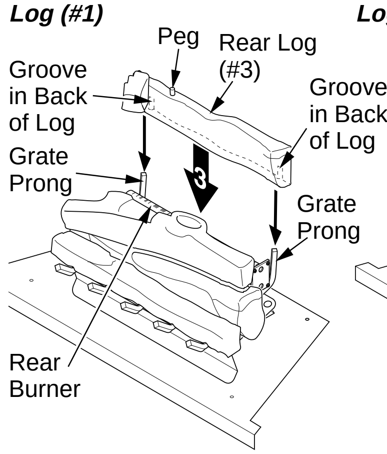


Figure 26 - Installing Rear Log (#3)

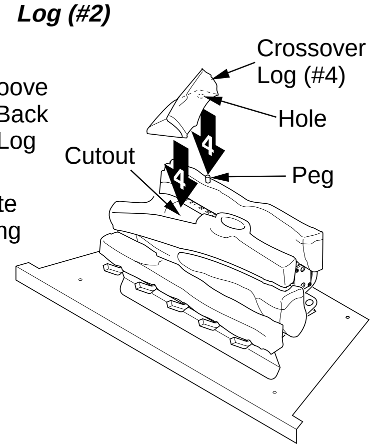


Figure 27 - Installing Crossover Log (#4)

INSTALLATION
Continued

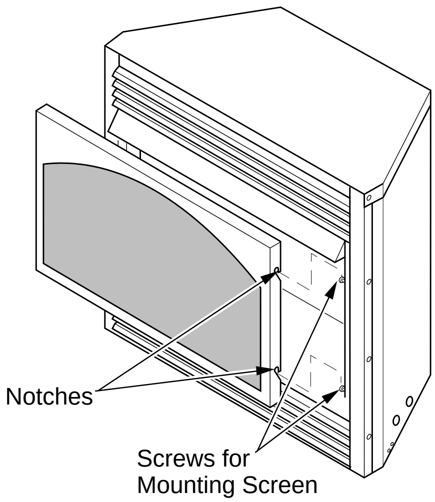


Figure 28 - Installing Fireplace Screen

OPERATING FIREPLACE

FOR YOUR SAFETY READ BEFORE LIGHTING

⚠ WARNING: If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

A. This appliance has a pilot which must be lighted by hand. When lighting the pilot, follow these instructions exactly.

B. BEFORE LIGHTING smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.

WHAT TO DO IF YOU SMELL GAS
- **Do not try to light any appliance.**
- **Do not touch any electric switch; do not use any phone in your building.**
- **Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.**
- **If you cannot reach your gas supplier, call the fire department.**

C. Use only your hand to push in or turn the gas control knob. Never use tools. If the knob will not push in or turn by hand, don't try to repair it, call a qualified service technician or gas supplier. Force or attempted repair may result in a fire or explosion.

D. Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.

LIGHTING INSTRUCTIONS

⚠ WARNING: You must operate this fireplace with the fireplace screen in place. Make sure fireplace screen is installed before running fireplace.

NOTICE: During initial operation of new fireplace, burning logs will give off a paper-burning smell. Open damper or window to vent smell. This will only last a few hours.

1. **STOP! Read the safety information in column 1.**
2. **Make sure equipment shutoff valve is fully open.**
3. **Set selector switch in OFF position.**

⚠ WARNING: Burners will come on automatically within one minute when the selector switch is in the ON position after the pilot is lit.

4. **Press in and turn control knob clockwise ↻ to the OFF position.**
5. **Wait five (5) minutes to clear out any gas. Then smell for gas, including near the floor. If you smell gas, STOP! Follow "B" in the safety information, column 1. If you don't smell gas, go to the next step.**
6. **Press in and turn control knob counterclockwise ↺ to the PILOT position. Press in control knob for five (5) seconds (see Figure 29).**

   Note: **You may be running this heater for the first time after hooking up to gas supply. If so, the control knob may need to be pressed in for 30 seconds or more. This will allow air to bleed from the gas system.**

⚠ CAUTION: Do not try to adjust heating levels by using the equipment shutoff valve.

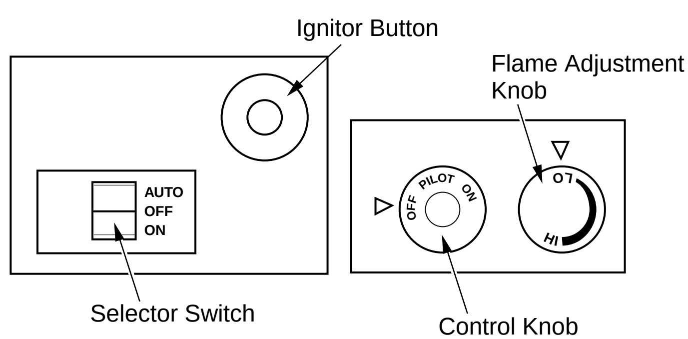


Figure 29 - Control Knob and Ignitor Button Location (Shown as Supplied, No Control Options)

OPERATING FIREPLACE
Continued

7. **With control knob pressed in, press and release ignitor button. This will light pilot. The pilot is attached to the front burner. If needed, keep pressing ignitor button until pilot lights.**

   Note: **If pilot does not stay lit, contact a qualified service person or gas supplier for repairs. Until repairs are made, light pilot with match. To light pilot with match, see *Manual Lighting Procedure*.**

8. **Keep control knob pressed in for 30 seconds after lighting pilot. After 30 seconds, release control knob.**
   - **If control knob does not pop out when released, contact a qualified service person or gas supplier for repairs.** ***Note:*** **If pilot goes out, repeat steps 4 through 8.**
9. **Slightly push in and turn control knob counterclockwise ↙ to the ON position.**
10. **Wait one minute and switch selector switch to the ON position to light burners.**
11. **Set flame adjustment knob to any level between HI and LO.**

> **⚠ WARNING: Make sure the selector switch is in the OFF position when you are away from home for long periods of time. Heater will come on automatically with selector switch in the ON position.**

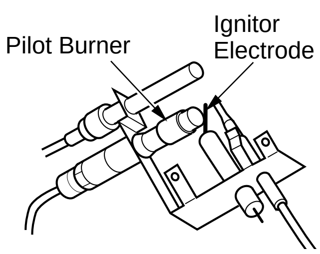


Figure 30 - Pilot (Natural)

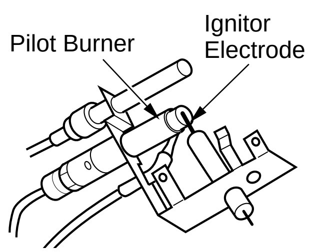


Figure 31 - Pilot (Propane/LP)

TO TURN OFF GAS TO APPLIANCE

Shutting Off Heater

1. **Turn control knob clockwise ↘ to the OFF position.**

2a. **Set selector switch in the OFF position.**

2b. **If Using Optional Hand-Held Remote: Set selector switch in the OFF position to keep from draining battery.**

Shutting Off Burners Only (pilot stays lit)

You may shut off the burners and keep the pilot lit by doing one of the following:

- **Turn control knob clockwise ↘ to the PILOT position.**
- **Use remote control manual OFF button.**
- **Set selector switch in the OFF position.**

MANUAL LIGHTING PROCEDURE

1. **Follow steps 1 through 6 under *Lighting Instructions*, page 15.**
2. **Depress control knob and light pilot with match.**
3. **Keep control knob pressed in for 30 seconds after lighting pilot. After 30 seconds, release control knob. Now follow steps 9 through 11, column 1.**

OPTIONAL REMOTE OPERATION

Note: **All remote control accessories must be purchased separately (see *Accessories*, pages 28 through 30). Follow instructions included with the remote control.**

Thermostat Control Operation

(Optional GHRCTA Series Only) The thermostat control setting on the remote control unit can be set to any comfort level between WARMER and COOLER. The burners will turn on and off automatically to maintain the comfort level you select. The ideal comfort setting will vary by household depending upon the amount of space to be heated, the output of the central heating system, etc.

For wall thermostat operation, follow instruction supplied with thermostat accessory GWMT1. For wall switch operation follow instructions supplied with GWMS2.

> **NOTICE: You must light the pilot before using the hand-held remote control unit. See *Lighting Instructions* on page 15.**

1. **After lighting, let pilot flame burn for about one minute. Turn control knob to ON position. Adjust flame adjustment knob anywhere between HI and LO. Slide the selector switch to the REMOTE position (see Figure 32, page 17).** ***Note:*** **The burners may light if hand-held remote ON button was on when selector switch was last turned off. You can now turn the burners on and off with the hand-held remote control unit.**

   IMPORTANT**: Do not leave the selector switch in the REMOTE position when the pilot is not lit. This will drain the battery.**

   IMPORTANT: **Be sure to press the ON/OFF buttons on the hand-held remote control unit for up to 3 seconds to assure proper operation.**

GHRC Series Operation:

2a. **Press the ON/OFF button to turn the burners on and off. When turning burners off, the pilot will remain lit.**

OPERATING FIREPLACE
Continued

GHRCTA Series Operation:

2b. Press the AUTO/ON/OFF button on the hand-held remote control (see Figure 33). The lights to the left of the button will show AUTO, ON, or OFF.
- **In the ON mode, the burners will ignite. The heater is in manual mode when ON is lit.**
- **In the AUTO mode, the thermostat in the hand-held remote unit controls the room temperature. To increase the room temperature, press the top arrow of the TEMP button. To lower the room temperature, press the bottom arrow of the TEMP button. At higher settings the heater will run longer.**
  IMPORTANT: **This remote control has been specially engineered to take an air temperature sample every minute in the auto mode. It will not respond immediately to the temperature setting being turned up or down.**
  IMPORTANT: **The hand-held remote control unit must be near the fireplace. Do not keep the hand-held remote control unit too close to the fireplace. The thermostat on the hand-held remote control unit will heat up too quickly and turn the fireplace off.**

3. To turn the burners off, press the AUTO/ON/OFF button until OFF lights. The pilot will remain lit.
IMPORTANT: **To turn the pilot off, manually turn the control knob on the fireplace to the OFF position.**

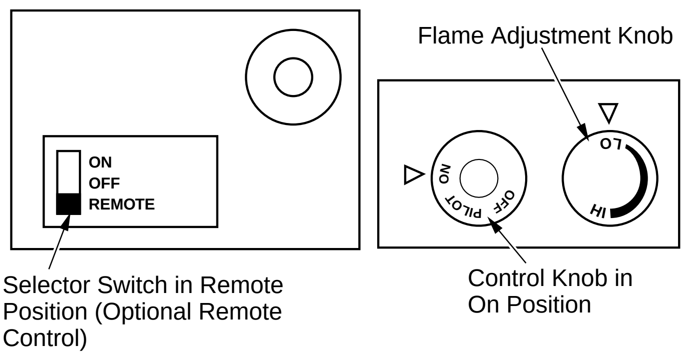


Figure 32 - Setting the Selector Switch, Control Knob, and Flame Adjustment Knob for Remote Operation

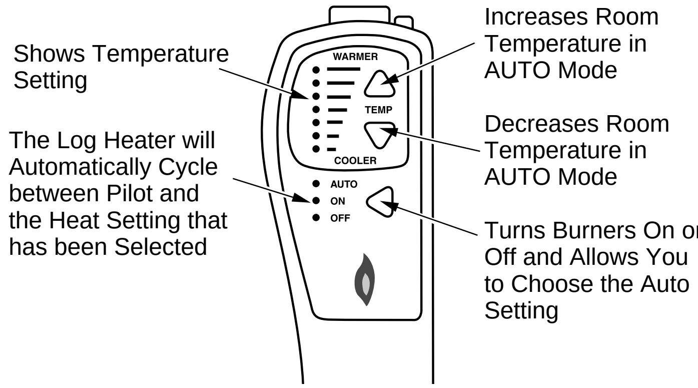


Figure 33 - Thermostat Hand-Held Remote Control Unit Selections (GHRCTA Series Only)

OPTIONAL BLOWER OPERATION

⚠ WARNING: This fireplace has a three-prong, grounded electrical plug. This plug helps protect you against electrical shock. Only connect plug to a properly grounded, three-prong receptacle. Do not cut or remove the grounding prong from this plug.

Locate the blower switch by opening lower louver on fireplace. Blower switch is located at lower left inside louver door.

The GA3700TA thermostat-controlled blower has a variable speed control with an ON/OFF switch. The blower will start when the thermostat senses a sufficient increase in firebox temperature. The GA3700 variable speed blower also has an ON/OFF switch built into the variable speed control.

Note for GA3700TA Only: **If you are using GA3700TA blower, your fireplace and blower will not turn on and off at the same time. The fireplace may run for several minutes before the blower turns on. After the heater modulates to the pilot position, the blower will continue to run. The blower will shut off after the firebox temperature decreases.**

Note: **It is safe to operate fireplace with blower turned off. However, the blower helps distribute heated air from the fireplace.**

Follow installation instructions included with the blower accessory.

INSPECTING BURNERS

Check pilot flame pattern and burner flame patterns often.

PILOT FLAME PATTERN

Figure 34 shows a correct pilot flame pattern. Figure 35 shows an incorrect pilot flame pattern. The incorrect pilot flame is not properly heating the thermocouple. When the thermocouple cools, the heater will shut down.

If pilot flame pattern is incorrect, as shown in Figure 35

- turn heater off (see *To Turn Off Gas to Appliance*, page 16)
- see *Troubleshooting*, pages 20 through 22

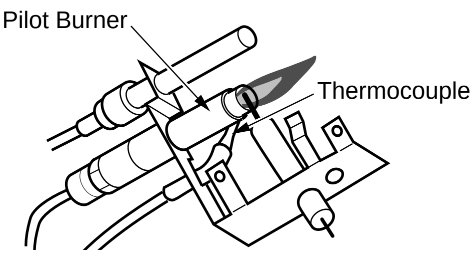


Figure 34 - Correct Pilot Flame Pattern

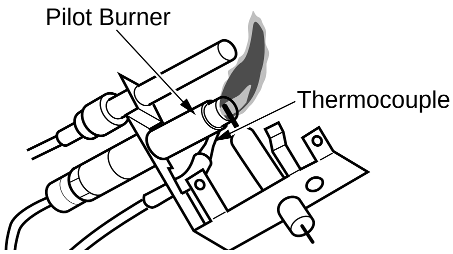


Figure 35 - Incorrect Pilot Flame Pattern

MAIN BURNER

Periodically inspect all burner flame holes with the heater running. All slotted burner flame holes should be open with yellow flame present. All round burner flame holes should be open with a small blue flame present. Some burner flame holes may become blocked by debris or rust, with no flame present. If so, turn off heater and let cool. Either remove blockage or replace burner. Blocked burner flame holes may create soot.

FRONT BURNER FLAME PATTERN

WARNING: If front burner flame pattern shows yellow tipping, your fireplace could produce increased levels of carbon monoxide. Follow instructions below. Yellow flame on rear burner is normal.

NOTICE: Do not mistake orange flames with yellow tipping. Dirt or other fine particles are burned by fireplace, causing brief patches of orange flame.

Figure 36 shows correct front burner flame pattern. Figure 37 shows incorrect front burner flame pattern. The incorrect burner flame pattern shows yellow tipping at top of blue flame.

If front burner flame pattern is incorrect, as shown in Figure 37

- turn fireplace off (see *To Turn Off Gas to Appliance*, page 16)
- see *Troubleshooting*, pages 20 through 22

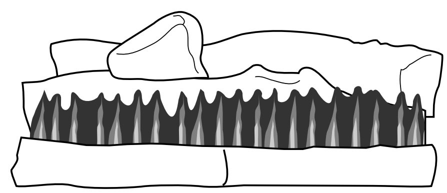


Figure 36 - Correct Burner Flame Pattern

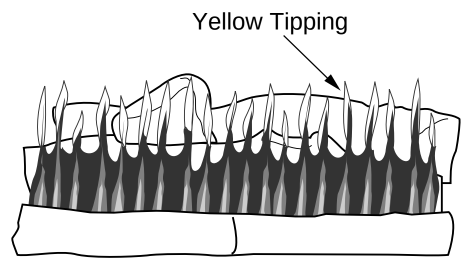


Figure 37 - Incorrect Burner Flame Pattern

CLEANING AND MAINTENANCE

⚠ WARNING: Turn off fireplace and let cool before cleaning.

⚠ CAUTION: You must keep control areas, burner, and circulating air passageways of fireplace clean. Inspect these areas of fireplace before each use. Have fireplace inspected yearly by a qualified service person. Fireplace may need more frequent cleaning due to excessive lint from carpeting, bedding material, pet hair, etc.

CLEANING BURNER INJECTOR HOLDER AND PILOT AIR INLET HOLE

The primary air inlet holes allow the proper amount of air to mix with the gas. This provides a clean burning flame. Keep these holes clear of dust, dirt, lint, and pet hair. Clean these air inlet holes prior to each heating season. Blocked air holes will create soot. We recommend that you clean the unit every three months during operation and have heater inspected yearly by a qualified service person.

We also recommend that you keep the burner tube and pilot assembly clean and free of dust and dirt. To clean these parts we recommend using compressed air no greater than 30 PSI. Your local computer store, hardware store, or home center may carry compressed air in a can. You can use a vacuum cleaner in the blow position. If using compressed air in a can, please follow the directions on the can. If you don't follow directions on the can, you could damage the pilot assembly.

1. Shut off the unit, including the pilot. Allow the unit to cool for at least thirty minutes.
2. Inspect burner, pilot, and primary air inlet holes on injector holder for dust and dirt (see Figure 38).
3. Blow air through the ports/slots and holes in the burner.
4. Check the injector holder located at the end of the burner tube again. Remove any large particles of dust, dirt, lint, or pet hair with a soft cloth or vacuum cleaner nozzle.
5. Blow air into the primary air holes on the injector holder.
6. In case any large clumps of dust have now been pushed into the burner repeat steps 3 and 4.

Clean the pilot assembly also. A yellow tip on the pilot flame indicates dust and dirt in the pilot assembly. There is a small pilot air inlet hole about two inches from where the pilot flame comes out of the pilot assembly (see Figure 39). With the unit off, lightly blow air through the air inlet hole. You may blow through a drinking straw if compressed air is not available.

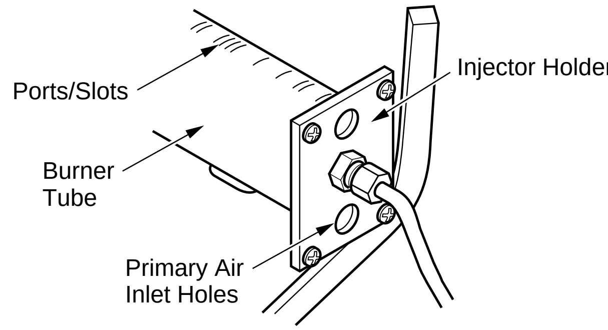


Figure 38 - Injector Holder On Outlet Burner Tube

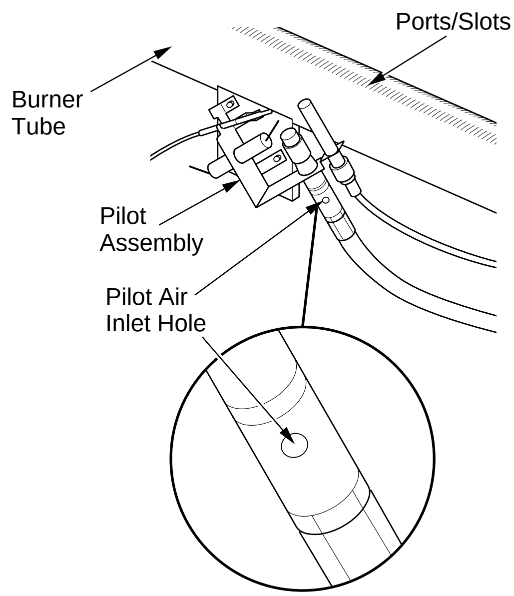


Figure 39 - Pilot Inlet Air Hole

LOGS

- If you remove logs for cleaning, refer to *Installing Logs*, page 14, to properly replace logs.
- Replace log(s) if broken or chipped (dime-sized or larger).

TROUBLESHOOTING

Note: For additional help, visit DESA International's technical service web site at **www.desatech.com**.

⚠ WARNING: Turn off heater and let cool before servicing. Only a qualified service person should service and repair heater.

⚠ CAUTION: Never use a wire, needle, or similar object to clean ODS/pilot. This can damage ODS/pilot unit.

Note: All troubleshooting items are listed in order of operation.

OBSERVED PROBLEM	POSSIBLE CAUSE	REMEDY
When ignitor button is pressed, there is no spark at ODS/pilot	1. Ignitor electrode not connected to ignitor cable	1. Reconnect ignitor cable
	2. Ignitor cable pinched or wet	2. Free ignitor cable if pinched by any metal or tubing. Keep ignitor cable dry
	3. Piezo ignitor nut is loose	3. Tighten nut holding piezo ignitor to base panel of log set. Nut is located behind base panel.
	4. Broken ignitor cable	4. Replace ignitor cable
	5. Bad piezo ignitor	5. Replace piezo ignitor
	6. Ignitor electrode broken	6. Replace piezo ignitor
	7. Ignitor electrode positioned wrong	7. Replace piezo ignitor
When ignitor button is pressed, there is spark at ODS/pilot but no ignition	1. Gas supply turned off or equipment shutoff valve closed	1. Turn on gas supply or open equipment shutoff valve
	2. Control knob not in PILOT position	2. Turn control knob to PILOT position
	3. Control knob not pressed in while in PILOT position	3. Press in control knob while in PILOT position
	4. Air in gas lines when installed	4. Continue holding down control knob. Repeat igniting operation until air is removed
	5. Depleted gas supply (propane/LP only)	5. Contact local propane/LP gas company
	6. ODS/pilot is clogged	6. Clean ODS/pilot (see *Cleaning and Maintenance*, page 19) or replace ODS/pilot assembly
	7. Gas regulator setting is not correct	7. Replace gas regulator
ODS/pilot lights but flame goes out when control knob is released	1. Control knob not fully pressed in	1. Press in control knob fully
	2. Control knob not pressed in long enough	2. After ODS/pilot lights, keep control knob pressed in 30 seconds
	3. Equipment shutoff valve not fully open	3. Fully open equipment shutoff valve
	4. Pilot flame not touching thermocouple, which allows thermocouple to cool, causing pilot flame to go out. This problem could be caused by one or both of the following: A) Low gas pressure B) Dirty or partially clogged ODS/pilot	4. A) Contact local natural or propane/LP gas company B) Clean ODS/pilot (see *Cleaning and Maintenance*, page 19) or replace ODS/pilot assembly
	5. Thermocouple connection loose at control valve	5. Hand tighten until snug, then tighten 1/4 turn more
	6. Thermocouple damaged	6. Replace thermocouple
	7. Control valve damaged	7. Replace control valve

TROUBLESHOOTING
Continued

OBSERVED PROBLEM	POSSIBLE CAUSE	REMEDY
Burner does not light after ODS/pilot is lit	1. Inlet gas pressure is too low 2. Burner orifice(s) clogged 3. Burner orifice diameter is too small 4. Thermopile leads disconnected or improperly connected 5. Burner will not come on in remote position	1. Contact local natural or propane/LP gas company 2. Clean burner(s) (see *Cleaning and Maintenance*, page 19) or replace burner orifice(s) 3. Replace burner orifice 4. Reconnect leads (see *Wiring Diagram*, page 23) 5. Replace battery in transmitter and receiver
Delayed ignition of one or both burners	1. Manifold pressure is too low 2. Burner orifice(s) clogged	1. Contact local natural or propane/LP gas company 2. Clean burner(s) (see *Cleaning and Maintenance*, page 19) or replace burner orifice(s)
Burner backfiring during combustion	1. Burner orifice is clogged or damaged 2. Damaged burner 3. Gas regulator defective	1. Clean burner (see *Cleaning and Maintenance*, page 19) or replace burner orifice(s) 2. Replace damaged burner 3. Replace gas regulator
Slight smoke or odor during initial operation	1. Not enough air 2. Gas regulator defective 3. Residues from manufacturing processes and logs curing	1. Check burner for dirt and debris. If found, clean burner (see *Cleaning and Maintenance*, page 19) 2. Replace gas control 3. Problem will stop after a few hours of operation
Moisture/condensation noticed on windows	1. Not enough combustion/ventilation air	1. Refer to *Air for Combustion and Ventilation* requirements (page 4)
Heater produces a whistling noise when burners are lit	1. Turning control knob to HI position when burners are cold 2. Air in gas line 3. Air passageways on heater blocked 4. Dirty or partially clogged burner orifice(s)	1. Turn control knob to LO position and let warm up for a minute 2. Operate burners until air is removed from line. Have gas line checked by local natural or propane/LP gas company 3. Observe minimum installation clearances (see pages 8 through 11) 4. Clean burners (see *Cleaning and Maintenance*, page 19) or replace burner orifice(s)
White powder residue forming within burner box or on adjacent walls or furniture	1. When heated, vapors from furniture polish, wax, carpet cleaners, etc. may turn into white powder residue	1. Turn heater off when using furniture polish, wax, carpet cleaners, or similar products
Remote does not function (GHRC and GHRCTA only)	1. Battery is not installed. Battery power is low	1. Replace 9-volt batteries in receiver and remote control

TROUBLESHOOTING

Continued

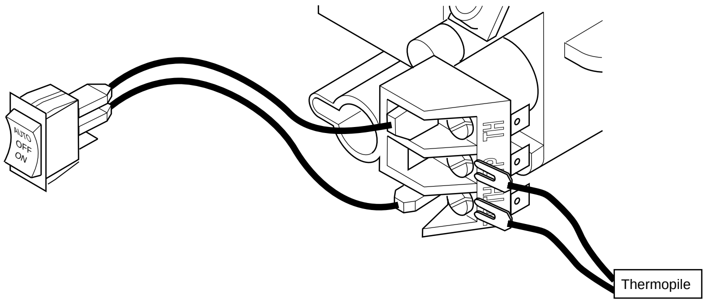
WARNING: If you smell gas
- **Shut off gas supply.**
- **Do not try to light any appliance.**
- **Do not touch any electrical switch; do not use any phone in your building.**
- **Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.**
- **If you cannot reach your gas supplier, call the fire department.**

IMPORTANT: Operating fireplace where impurities in air exist may create odors. Cleaning supplies, paint, paint remover, cigarette smoke, cements and glues, new carpet or textiles, etc., create fumes. These fumes may mix with combustion air and create odors. These odors will disappear over time.

OBSERVED PROBLEM	POSSIBLE CAUSE	REMEDY
Yellow flame in front burner during burner combustion	1. Not enough air 2. Gas regulator defective	1. Check burner(s) for dirt and debris. If found, clean burner(s) (see *Cleaning and Maintenance*, page 19) 2. Replace gas regulator
Fireplace produces a clicking/ticking noise just after burner is lit or shut off	1. Metal expanding while heating or contracting while cooling	1. This is common with most heaters. If noise is excessive, contact qualified service person
Fireplace produces unwanted odors	1. Heater burning vapors from paint, hair spray, glues, cleaners, chemicals, new carpet, etc. (See *IMPORTANT* statement above) 2. Low fuel supply (propane/LP only) 3. Gas leak. **See Warning statement at top of page**	1. Open window to ventilate room. Stop using odor causing products while heater is running 2. Refill supply tank (propane/LP only) 3. Locate and correct all leaks (see *Checking Gas Connections*, page 13)
Fireplace shuts off in use (ODS operates)	1. Not enough fresh air is available 2. Low line pressure 3. ODS/pilot is partially clogged	1. Open window and/or door for ventilation 2. Contact local natural or propane/LP gas company 3. Clean ODS/pilot (see *Cleaning and Maintenance*, page 19)
Gas odor even when control knob is in OFF position	1. Gas leak. **See Warning statement at top of page** 2. Control valve or gas control defective	1. Locate and correct all leaks (see *Checking Gas Connections*, page 13) 2. Replace control valve or gas control
Gas odor during combustion	1. Foreign matter between control valve and burner 2. Gas leak. **See Warning statement at top of page**	1. Take apart gas tubing and remove foreign matter 2. Locate and correct all leaks (see *Checking Gas Connections*, page 13)
Dark residue on logs inside of their fireplace *Note:* After removing all causes of residue deposits, completely clean fireplace and appliance off residue before reusing appliance	1. Improper log placement 2. Drafts or other air currents affecting flame pattern 3. Air holes at burner inlet blocked 4. Burner flame holes blocked	1. Properly locate logs (see *Installing Logs*, page 14) 2. Eliminate source of drafts around heater 3. Clean out air holes at burner inlet. Periodically repeat as needed 4. Remove blockage or replace burner

WIRING DIAGRAM

Note: For proper operation of optional accessories, the wires from the switch to the control must be connected exactly as shown.



SPECIFICATIONS

MODELS EFS33NR & VSGF33NR

Btu (Variable)	20,000/33,000
Type Gas	Natural Gas Only
Ignition	Piezo
Pressure Manifold	3.5" W.C.
Inlet Gas Pressure (in. of water)	
Maximum	10.5"
Minimum*	5"
Shipping Weight	122 lbs.

* For input adjustment

MODELS EFS33PR & VSGF33PR

Btu (Variable)	20,000/33,000
Type Gas	Propane/LP Only
Ignition	Piezo
Pressure Manifold	7.9" W.C.
Inlet Gas Pressure (in. of water)	
Maximum	13"
Minimum*	11"
Shipping Weight	122 lbs.

* For input adjustment

REPLACEMENT PARTS

Note: Use only original replacement parts. This will protect your warranty coverage for parts replaced under warranty.

PARTS UNDER WARRANTY

Contact authorized dealers of this product. If they can't supply original replacement part(s), call DESA International's Technical Service Department at 1-866-672-6040. When calling DESA International, have ready

- your name and address
- model and serial numbers of your fireplace
- how fireplace was malfunctioning
- type of gas used (propane/LP or natural gas)
- purchase date

Usually, we will ask you to return the part to the factory.

PARTS NOT UNDER WARRANTY

Contact authorized dealers of this product. If they can't supply original replacement part(s), call DESA International at 1-866-672-6040 for referral information. When calling DESA International, have ready

- model number of your fireplace
- the replacement part number

SERVICE HINTS

When Gas Pressure Is Too Low

- pilot will not stay lit
- burners will have delayed ignition
- heater will not produce specified heat
- propane/LP gas supply may be low for propane/LP unit

You may feel your gas pressure is too low. If so, contact your local gas supplier.

TECHNICAL SERVICE

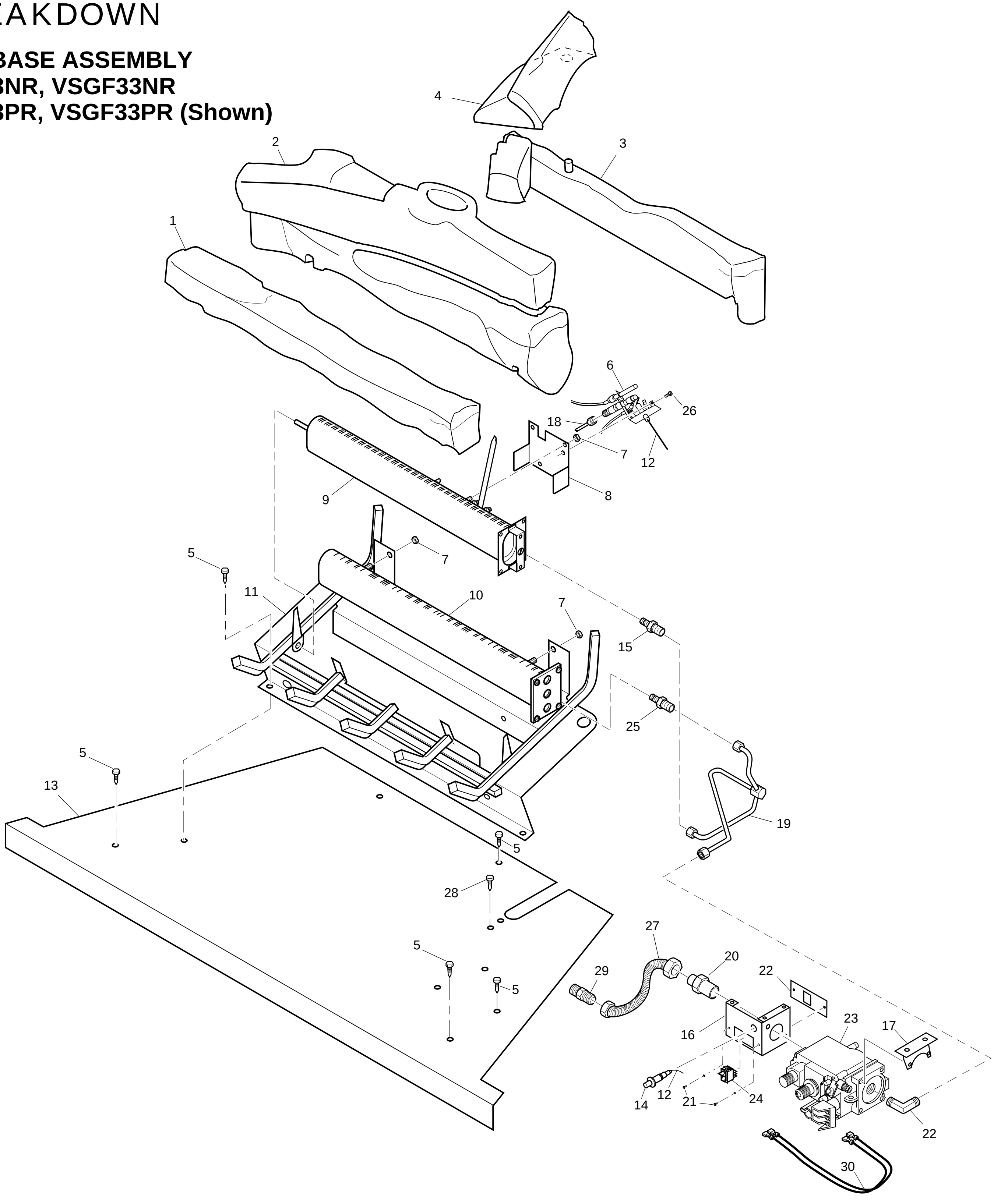
You may have further questions about installation, operation, or troubleshooting.

If so, contact DESA International's Technical Service Department at 1-866-672-6040.

You can also visit DESA International's technical services web site at **www.desatech.com.**

ILLUSTRATED PARTS BREAKDOWN

LOG BASE ASSEMBLY
EFS33NR, VSGF33NR
EFS33PR, VSGF33PR (Shown)



107172

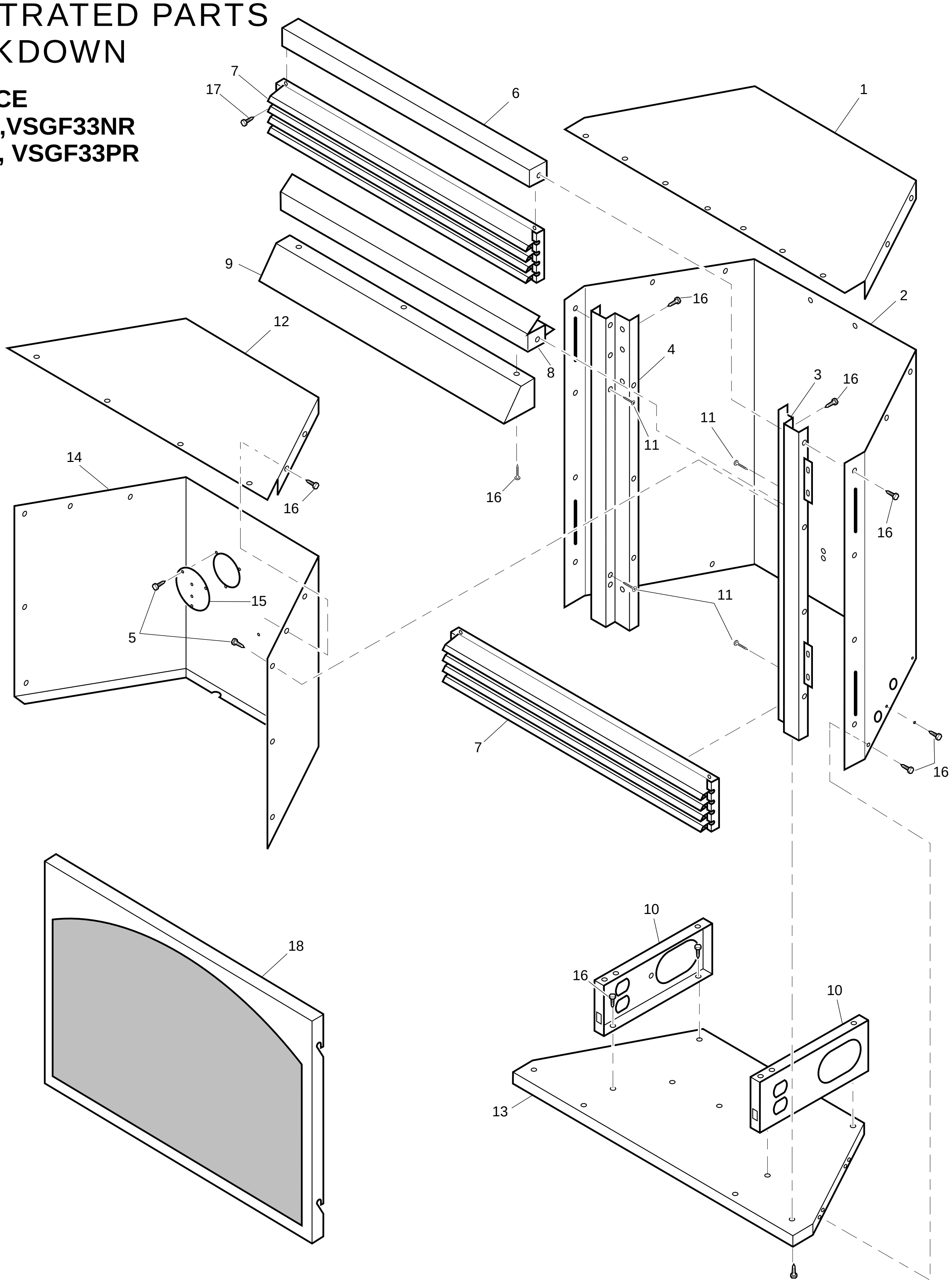
PARTS LIST

This list contains replaceable parts used in your fireplace. When ordering parts, follow the instructions listed under *Replacement Parts* on page 23 of this manual.

KEY NO.	PART NUMBER EFS33NR VSGF33NR	EFS33PR VSGF33PR	DESCRIPTION	QTY.
1	104388-02	104388-02	Front Log (#1)	1
2	104390-02	104390-02	Middle Log (#2)	1
3	104392-02	104392-02	Rear Log (#3)	1
4	104394-02	104394-02	Crossover Log (#4)	1
5	098304-01	098304-01	Screw, #10 Phillips, Black	8
6	107485-02	103778-01	O.D.S. Pilot (Propane/LP)	1
7	098249-01	098249-01	Nut	4
8	101006-02	101006-02	Pilot Bracket	1
9	101330-05	101330-05	Front Burner Assembly	1
10	109824-02	100999-02	Rear Burner Assembly	1
11	102257-08CJ	102257-08CJ	Base Assembly	1
12	098271-06	098271-06	Ignitor Cable	1
13	103410-01CK	103410-01CK	Firebox Bottom	1
14	102445-01	102445-01	Piezo Ignitor	1
15	101004-08	101004-02	Front Burner Injector	1
16	104241-02	104241-02	Switch Bracket	1
17	103782-01	103782-01	Valve Bracket	1
18	099387-12	099387-12	Pilot Tube	1
19	102846-02	102846-02	Burner Tube	1
20	097809-02	097809-02	Adapter	1
21	M12461-26	M12461-26	10/32, Screw	4
22	098265-02	098265-02	Elbow, Male	1
23	103781-01	103781-02	Gas Valve Assembly	1
24	099998-01	099998-01	Switch	1
25	101004-11	101004-01	Rear Burner Injector	1
26	M11084-26	M11084-26	Hex Screw, #10	2
27	101628-03	101628-03	Flex Hose	1
28	M11084-38	M11084-38	Screw	2
29	901056-01	901056-01	3/8" Flare x 1/2" NPT	1
30	103284-03	103284-03	Wiring Harness	1
PARTS AVAILABLE — NOT SHOWN				
	100563-01	100563-01	Warning Plate	1
	103877-01	103877-01	Lighting Instructions Plate	1

ILLUSTRATED PARTS BREAKDOWN

FIREPLACE
EFS33NR,VSGF33NR
EFS33PR, VSGF33PR



PARTS LIST

FIREPLACE
EFS33NR, VSGF33NR
EFS33PR, VSGF33PR

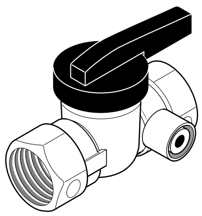
This list contains replaceable parts used in your fireplace. When ordering parts, follow the instructions listed under *Replacement Parts* on page 23 of this manual.

KEY NO.	PART NUMBER	DESCRIPTION	QTY.
1	101357-01	Top Outer Casing	1
2	103207-01	Outer Casing	1
3	102758-02CK	Right Front Side	1
4	102759-02CK	Left Front Side	1
5	098304-01	Phillips Pan Head Screw, #10	17
6	101351-01CK	Top Front	1
7	102455-02	Top Louver Assembly	2
8	101353-01CK	Middle Front Rail	1
9	101712-02	Firebox Hood	1
10	101348-01	Firebox Support	2
11	099230-01	Shoulder Screw	4
12	101872-03	Firebox Top	1
13	101346-01	Outer Base	1
14	101838-03CJ	Firebox Wrapper	1
15	101514-01	Cover	1
16	M11084-26	Hex Screw, #10	57
17	098304-03	Phillips Pan Head Screw, #8	4
18	101727-03	Screen Assembly	1
PARTS AVAILABLE — NOT SHOWN			
	100639-01	Caution Decal	1
	103590-01	Decal Strip	1
	104313-01	Hinge, Pin	1
	104313-02	Hinge, Pin	1
	M10908-2	Screw, Slotted Hex Head Tapping	4

ACCESSORIES

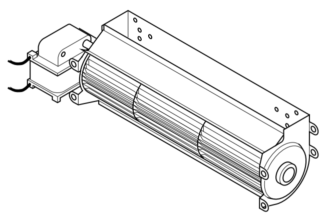
Notice: All accessories may not be available for all fireplace models.

Purchase these fireplace accessories from your local dealer. If they can not supply these accessories, call DESA International at 1-866-672-6040 for information. You can also write to the address listed on the back page of this manual.



EQUIPMENT SHUTOFF VALVE - GA5010

For all models. Equipment shutoff valve with 1/8" NPT tap. Fits 1/2" NPT pipe.



BLOWER ACCESSORY GA3700 & GA3700T SERIES

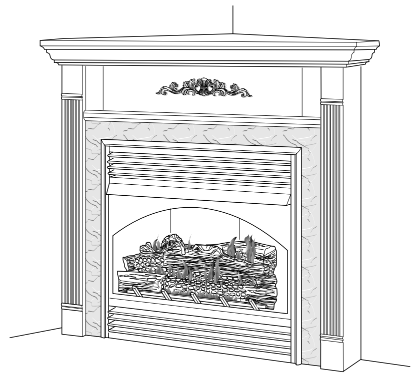
For all models. Manual variable control and automatic thermostat variable control. A blower will increase air flow to maximize heat distribution.

DUPLEX OUTLET KIT - GA3555 (Not Shown)

For all models. For built-in installation when accessory blowers are used.

INFORMATION VIDEO - 108917-01

For all models. A care and maintenance video is available by calling 1-866-672-6040.

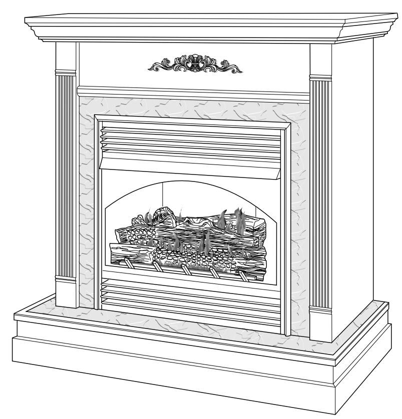


CORNER MANTEL

GM36F Series - Walnut Finished
GM37U Series - Unfinished
GM202F Series - Oak Finished

For all models. Shown with optional base and laminate hearth and mantel trim accessories. Space saving corner mantels feature moldings, fluting and medallion.

Dimensions (H xW xD): 48 3/4" x 60 7/8" x 34 3/4"



CABINET MANTEL

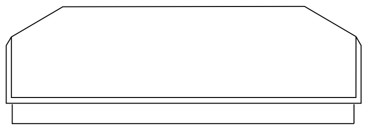
GM11F Series - Walnut Finished
GM12U Series - Unfinished
GM13F Series - Oak Finished with Medium Stain
GM107U Series - Unfinished
GM102W Series - Off White Paint

For all models. Shown with optional base and laminate hearth and mantel trim accessories. Mantel features moldings, fluting and medallion.

Dimensions (WxHxD): 48" x 56 3/4" x 22 3/4"

ACCESSORIES

Continued

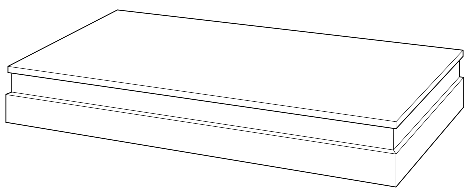


CORNER HEARTH BASE

G3008F Series - Walnut Finished
G3009U Series - Unfinished
G3010F Series - Oak Finished

For all models. The corner hearth base is designed for use with the corner mantels to create a handsome riser for the fireplace.

Dimensions (WxHxD): 6" x 52 1/2" x 23 3/4"



HARDWOOD HEARTH BASE

G3333F Series- Walnut Finished
G3334U Series - Unfinished
G3335F Series - Oak Finished with Medium Stain
G3007U Series - Unfinished Oak
G3004W Series - Off White Paint

For all models. The hearth base can be used with the cabinet mantels to create a handsome riser for the fireplace (cannot be used with corner mantel).

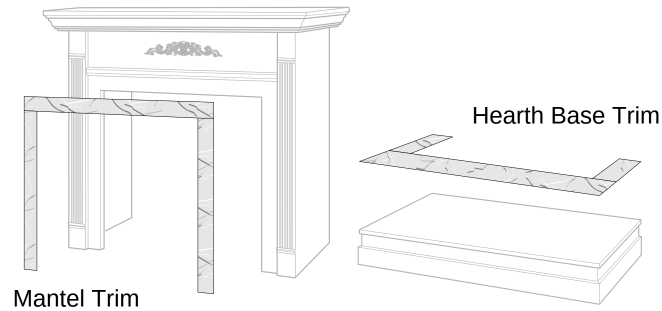
Dimensions (WxHxD): 6 1/2" x 58" x 28 9/16"

SLIM HEARTH BASE (Not Shown)

G3005J Series - Jade Marble Laminate
G3005S Series - Sandstone Marble Laminate
G3005B Series - Black Onyx Marble Laminate

For all models. The slim hearth base allows you to further customize your fireplace.

Dimensions (WxHxD): 5/8" x 41 7/8" x 10"



LAMINATE TRIM FOR HEARTH OR MANTEL

G3002J Series - Jade Marble Laminate Mantel Trim
G3003J Series - Jade Marble Laminate Hearth Base Trim
G3002S Series - Sandstone Marble Laminate Mantel Trim
G3003S Series - Sandstone Marble Laminate Hearth Base Trim
G3002B Series - Black Onyx Marble Laminate Trim
G3003B Series - Black Onyx Marble Laminate Hearth Base Trim

For all models. Mantel trim for cabinet, or corner mantel. Hearth base trim for hardwood hearth bases.

BRASS TRIM ACCESSORY - GA7090 (Not Shown)

For all models. Optional with built-in installation. Provides a finished appearance covering rough and/or unfinished mantel or wall opening, edges, etc.
(Included with mantel accessory.)

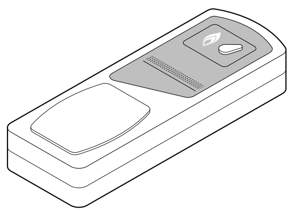
CLEANING KIT - GCK (Not Shown)

For all models. Your vent-free gas appliance requires regular cleaning and maintenance to prevent performance problems. This kit gives you the tools and instructions to make it easy to clean all critical areas of your appliance.

FIREBOX BRICK LINER - G8000A Series (Not Shown)

For all models. Ceramic fiber firebox liner adds the look of real brick.

ACCESSORIES
Continued



RECEIVER AND HAND-HELD REMOTE CONTROL KIT - GHRC SERIES

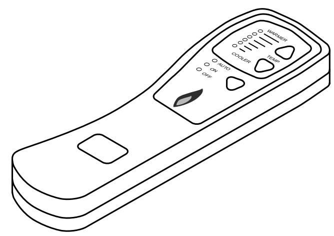
For all models. Allows the gas fireplace to be turned on and off by using a hand-held remote control.

WALL-MOUNT THERMOSTAT SWITCH - GWMT1
(Not Shown)

For all models. The desired comfort setting can be selected on the wall thermostat and the fireplace will automatically cycle from pilot to the heat setting selected.

WALL-MOUNT ON/OFF SWITCH - GWMS2
(Not Shown)

For all models. Allows the gas fireplace to be turned on and off with a wall switch.



RECEIVER AND HAND-HELD THERMOSTAT REMOTE CONTROL KIT GHRCTA SERIES

For all models. Allows the gas fireplace to be operated in a manually or thermostatically-controlled mode. You can turn the gas fireplace on and off without ever leaving the comfort of your easy chair.

OWNER'S REGISTRATION FORM

In order to provide better customer service for this and future purchases, we recommend that you register your product with us. You can register online at **www.desatech.com**. If access to our website is not available to you, please complete this Owner's Registration Form and mail to the address on the back of this owner's manual. Please provide the following product information:

Brand: ______________________ (Comfort Glow, Vanguard, etc.)
Model: ______________________ (EFP33PR, VTGH33NR, etc.)
Date Purchased: ______________________ *Note:* Keep receipt for warranty verification.
Serial Number: ______________________ 7 or 9 digit number located on product or identification tag.
First Name: ______________________ Last Name: ______________________
Address: ____
City: ______________________ State: ______ Zip: ____________ Country: ____________
Home Phone: ( ) -
E-Mail: ______________________

Please answer the following questions to register your product with DESA International:

1. Where will the product be used?
   ❍ Living/Family Room ❍ Office/Warehouse ❍ Utility Shed/Outbuilding ❍ Garage ❍ Bedroom ❍ Bathroom ❍ Other
2. If you bought this product yourself, did you plan to purchase this type of product before going into the store? ❍ Yes ❍ No
3. Who selected the product? ❍ Male ❍ Female ❍ Both
4. What is the population of your area? ❍ Under 10,000 ❍ 10,000 to 25,000 ❍ 25,000 to 50,000 ❍ 50,000 to 100,000
   ❍ 100,000 to 250,000 ❍ Over 250,000
5. What is your primary source of heat? ❍ Propane (LP Gas) ❍ Fuel Oil ❍ Wood ❍ Natural Gas ❍ Electric ❍ Other
6. How was the product installed? ❍ Professional Installer ❍ Self ❍ Other
7. Cost of product excluding sales tax? $___________________
8. Cost to install product? $____________________
9. Type of store where product was purchased? ❍ Hardware ❍ Propane Dealer ❍ Natural Gas/Utility Co. ❍ Home Center/Builder's Supply
   ❍ Fireplace or Hearth Shop ❍ Farm Store ❍ Other
10. What motivated you to buy this product? ❍ Sudden Cold Weather ❍ Replace Older Model ❍ D.I.Y. Home Project
    ❍ Emergency Back-Up Heat ❍ Heater was on Sale ❍ Energy Savings/High Efficiency ❍ Construction Project ❍ Other
11. How did you learn about this product brand? ❍ Advertising ❍ Relative or Friend ❍ Store Display ❍ Other ________________________
12. Level of Education of Purchaser: ❍ Some High School ❍ Completed High School ❍ Completed College ❍ Completed Graduate School
13. Age of Purchaser: ❍ Under 20 ❍ 20 - 29 ❍ 30 - 39 ❍ 40 - 49 ❍ 50 - 59 ❍ 60 or Over
14. Buyer's total annual household income: ❍ Under $15,000 ❍ $15,000 to $19,999 ❍ $20,000 to $34,999 ❍ $35,000 to $49,999
    ❍ $50,000 to $74,999 ❍ $75,000 to $99,999 ❍ $100,000 and Over
15. Store where product was purchased:
    Name: ______________________________________
    City: ________________________ State: __________
16. In choosing this product, how important were the following:

	Not Important	Somewhat Important	Very Important
Availability	❍	❍	❍
Price	❍	❍	❍
Brand Name	❍	❍	❍
Overall Quality	❍	❍	❍
Heat Output	❍	❍	❍
Made in USA	❍	❍	❍
Warranty	❍	❍	❍
Local Service	❍	❍	❍
Value for Price	❍	❍	❍
Prior Brand Experience	❍	❍	❍
Controls Location	❍	❍	❍
Thermostat, Remote, or Manual Operation	❍	❍	❍
Ease of Operation	❍	❍	❍
Special Features	❍	❍	❍
Salesperson's Recommendation	❍	❍	❍
Friend/Relative's Recommendation	❍	❍	❍
Portability	❍	❍	❍
Quiet Operation	❍	❍	❍

Postage
Required

DESA™
INTERNATIONAL
2701 Industrial Drive
P.O. Box 90004
Bowling Green, KY 42102-9004

NOTES

WARRANTY INFORMATION

KEEP THIS WARRANTY

Model ______________________________

Serial No. ______________________________

Date Purchased ______________________________

Always specify model and serial numbers when communicating with the factory.

We reserve the right to amend these specifications at any time without notice. The only warranty applicable is our standard written warranty. We make no other warranty, expressed or implied.

LIMITED WARRANTY
VENT-FREE GAS FIREPLACE

DESA International warrants this product to be free from defects in materials and components for four (4) years and five (5) years on stainless steel burners from the date of first purchase, provided that the product has been properly installed, operated and maintained in accordance with all applicable instructions. To make a claim under this warranty the Bill of Sale or cancelled check must be presented.

This warranty is extended only to the original retail purchaser. This warranty covers the cost of part(s) required to restore this heater to proper operating condition and an allowance for labor when provided by a DESA Authorized Service Center. Warranty part(s) MUST be obtained through authorized dealers of this product and/or DESA International who will provide original factory replacement parts. Failure to use original factory replacement parts voids this warranty. The heater MUST be installed by a qualified installer in accordance with all local codes and instructions furnished with the unit.

This warranty does not apply to parts that are not in original condition because of normal wear and tear, or parts that fail or become damaged as a result of misuse, accidents, lack of proper maintenance or defects caused by improper installation. Travel, diagnostic cost, labor, transportation and any and all such other costs related to repairing a defective heater will be the responsibility of the owner.

TO THE FULL EXTENT ALLOWED BY THE LAW OF THE JURISDICTION THAT GOVERNS THE SALE OF THE PRODUCT; THIS EXPRESS WARRANTY EXCLUDES ANY AND ALL OTHER EXPRESSED WARRANTIES AND LIMITS THE DURATION OF ANY AND ALL IMPLIED WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE TO FOUR (4) YEARS ON ALL COMPONENTS AND FIVE (5) YEARS ON STAINLESS STEEL BURNERS FROM THE DATE OF FIRST PURCHASE; AND DESA INTERNATIONAL'S LIABILITY IS HEREBY LIMITED TO THE PURCHASE PRICE OF THE PRODUCT AND DESA INTERNATIONAL SHALL NOT BE LIABLE FOR ANY OTHER DAMAGES WHATSOEVER INCLUDING INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES.

Some states do not allow a limitation on how long an implied warranty lasts or an exclusion or limitation of incidental or consequential damages, so the above limitation on implied warranties, or exclusion or limitation on damages may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights that vary from state to state.

For information about this warranty write:

DESA INTERNATIONAL™

2701 Industrial Drive
P.O. Box 90004
Bowling Green, KY 42102-9004
www.desatech.com

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NOT A UPC

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